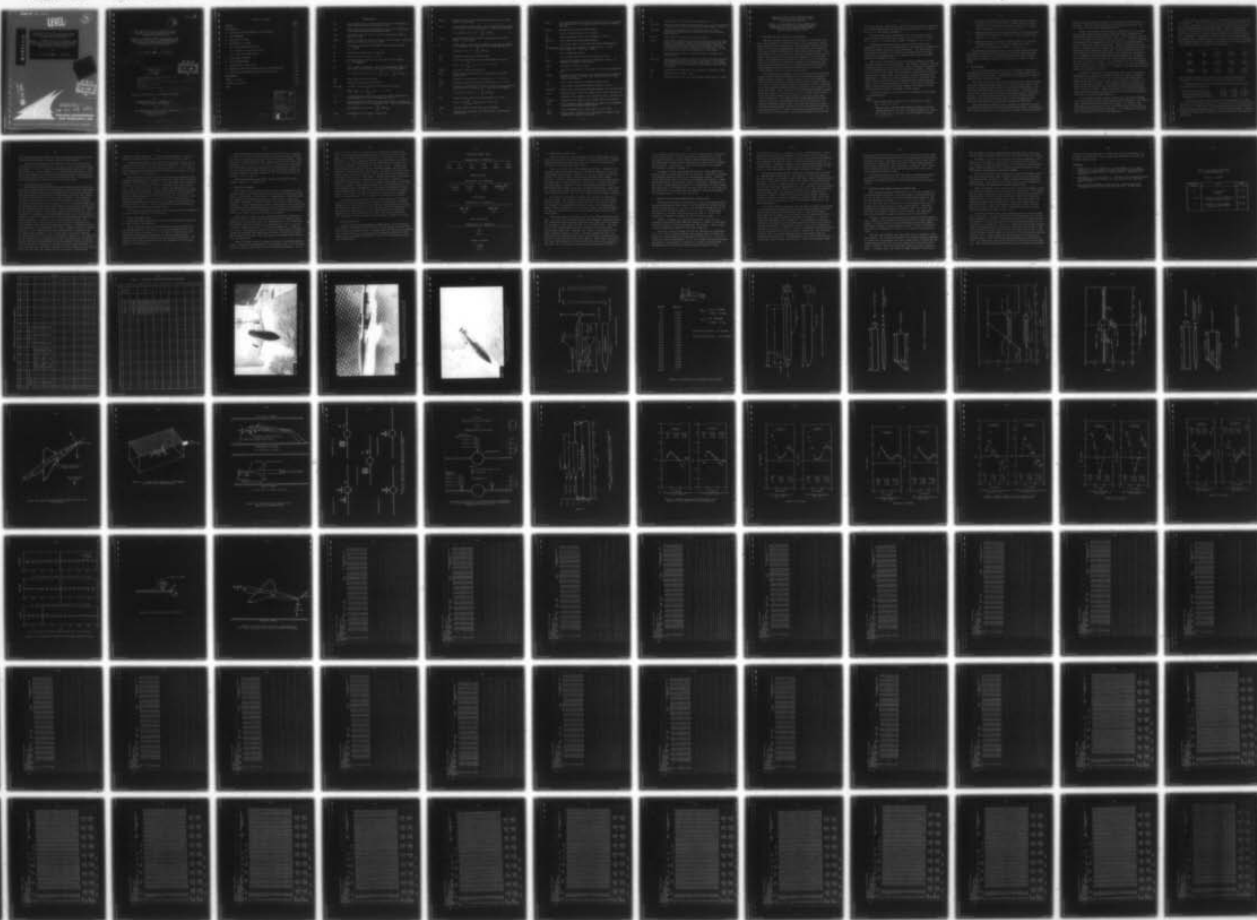


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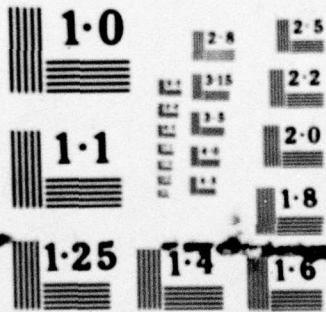
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DATA REPORT FOR A TEST PROGRAM TO STUDY  
TRANSONIC FLOW FIELDS ABOUT WING-BODY/  
PYLON/STORE COMBINATIONS.

VOLUME I. SUMMARY REPORT, TUNNEL-EMPTY FLOW  
SURVEY DATA, WING-BODY FORCE/MOMENT/SURFACE  
PRESSURE DATA, AND PRESSURE STORE FORCE/  
MOMENT/SURFACE PRESSURE DATA.

by

S. S. Stahara and A. J. Crisalli

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# NOMENCLATURE

AAL	local upwash angle referenced to body-axis coordinates, calculated from probe measurements, deg
AATL	local upwash angle referenced to tunnel-axis coordinates, calculated from probe measurements, deg
ALFA	wing-body angle of attack, positive nose up as seen by the pilot, deg
ALFAS	angle of attack of the CTS mounted store or probe positive nose up as seen by the pilot, deg
$A_n$	pressure store projected planform area of nth element $A_n = \frac{\Delta \phi r(x)}{S}$
AW	wing-body planform area, 0.444 ft <sup>2</sup>
b	wing span of wing body, 16.0 in.
$B_n$	pressure store projected frontal area of nth element $B_n = \frac{\Delta \phi r(x) dr/dx}{S}$
CA	axial-force coefficient, positive downstream as seen by the pilot; for wing-body, $CA = \text{axial force}/[(Q)(AW)]$ ; for pressure store, $CA = D_1 \sum_{\phi=-175}^{175} CP_1 + \sum_{n=2}^5 (CAX)_n D_n$
CAB	base axial-force coefficient
CAF	forebody axial-force coefficient
CAX, $CAX_n$	pressure store axial-force distribution per foot $CAX = CAX_n = B_n \sum_{\phi=-175}^{175} CP_n, \quad n = 1 \text{ to } 5$
CLL	rolling-moment coefficient, positive vector upstream as seen by the pilot, $CLL = \text{moment}/[(Q)(AW)(b)]$
CLM	pitching-moment coefficient, positive vector to right as seen by the pilot; for wing-body, $CLM = \text{moment}/[(Q)(AW)(MAC)]$ ; for pressure store, $CLM = \sum_{n=2}^{19} (CLMX)_n G_n$
CLMF	forebody pitching-moment coefficient



CLMX<sub>n</sub> pressure store pitching-moment distribution per foot,  

$$CLMX_n = (x/d)_n (CNX)_n$$

CLN yawing-moment coefficient, positive vector down as seen by the pilot; for wing-body,  $CLN = \text{moment}/[(Q)(AW)(b)]$ ;  
 for pressure store,  $CLN = \sum_{n=2}^{19} (CLNX)_n$

CLNX<sub>n</sub> pressure store yawing-moment distribution per foot,  

$$CLNX_n = (x/d)_n (CYX)_n$$

CN normal-force coefficient, positive up as seen by pilot; for wing-body,  $CN = \text{normal force}/[(Q)(AW)(MAC)]$ ; for  
 pressure store,  $CN = \sum_{n=2}^{19} (CNX)_n G_n$

CNF forebody normal-force coefficient

CNX pressure store normal-force distribution per foot,  

$$CNX_n = -A_n \sum_{\phi=-175}^{175} CP_n \cos \phi, n = 2 \text{ to } 19$$

CONFIG wing-body loading designation

CPL local pressure coefficient, calculated from probe measurements

CP<sub>n</sub> pressure store pressure coefficient,  $n = 1 \text{ to } 19$

CPS<sub>n</sub> wing-body surface pressure coefficient,  $n = 1 \text{ to } 25$

CY side-force coefficient, positive to the right as seen by the pilot; for wing-body,  $CY = \text{side force}/[(Q)(AW)]$ ;  
 for pressure store,  $CY = \sum_{n=2}^{19} (CYX)_n G_n$

CYX pressure store side-force distribution per foot  

$$CYX_n = -A_n \sum_{\phi=-175}^{175} CP_n \sin \phi, n = 2 \text{ to } 19$$

DATE calendar time at which data were recorded

D<sub>n</sub> length of nth element in X direction for axial-force calculation

DPHI	roll angle between the pressure store orifice (X-Z) plane and the wing-body X-Z plane, positive clockwise looking upstream
$dr/dx$	pressure store local surface slope
$G_n$	length of nth element in X direction
MAC	mean aerodynamic chord for wing-body, 5.344 in.
MACH (M)	wind tunnel free-stream Mach number
ML	local Mach number calculated from probe measurements
M1,M2,M3,M4	free stream Mach numbers. Nominally, M1 = 0.925, M2 = 0.950, M3 = 1.05, M4 = 1.10
$M_\infty$	free stream Mach number
P	wind tunnel free-stream static pressure, psfa
PART	sequential indexing number for referencing data. A constant throughout each survey
PBAR	atmospheric pressure, psfa
PL	local static pressure calculated from probe measurements, psfa
POINT	sequential indexing number for referencing data obtained during one part. Indexes each time a new set of data inputs is obtained
PTL	local total pressure measured by probe, psfa
Q	wind tunnel free-stream dynamic pressure, psfa
$Re \times 10^{-6}$	wind tunnel free-stream Reynolds number, millions per foot
$r(x)$	pressure store local body radius at orifice location "X"
S	pressure store maximum cross-sectional area, 0.003068 ft <sup>2</sup>
SURVEY	identifier for specific user table-survey combination
SWL	local sidewash angle referenced to body axis coordinates, calculated from probe measurements
SWTL	local sidewash angle referenced to tunnel axis
TEST	alpha-numeric notation for referencing a specific test program in a specific test unit



TT	wind tunnel free-stream total temperature, °F
UL,VL,WL	velocity components in the body axis X, Y, and Z directions, respectively, calculated from probe measurements, ft/sec
UT,VT,WT	velocity components in the tunnel-axis X, Y, and Z directions, respectively, calculated from probe measurements, ft/sec
V1(VM)	wind tunnel free-stream velocity, ft/sec
X,Y,Z	body-fixed Cartesian coordinate system with origin at the nose of the aircraft model, and orientation such that the X axis is directed downstream and coincident with the longitudinal body axis, the Y axis directed to the left as viewed by a tunnel observer looking upstream, and the Z axis directed vertically downward in the tunnel
XS	axial distance along the pressure store, measured from the nose, ft
XT,YT,ZT	tunnel-fixed Cartesian coordinate system directed parallel and perpendicular to the tunnel centerline. The origin is coincident with the aircraft model nose at zero angle of attack. Positive directions are identical to the body axis system
x/d	characteristic dimension from midpoint of pressure store
$\alpha$	model angle of attack, deg
$\Delta\phi$	pressure store roll increment between data points, 10 deg

DATA REPORT FOR A TEST PROGRAM TO STUDY  
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PYLON/STORE COMBINATIONS

VOLUME I.- SUMMARY REPORT, TUNNEL-EMPTY FLOW  
SURVEY DATA, WING-BODY FORCE/MOMENT/SURFACE  
PRESSURE DATA, AND PRESSURE STORE FORCE/  
MOMENT/SURFACE PRESSURE DATA

1. INTRODUCTION AND SUMMARY OF TEST PROGRAM

The test program described in this report, authorized under Air Force Contract No. F44620-75-C-0047, was conducted in the 4T Wind Tunnel at Arnold Engineering and Development Center for the purpose of obtaining experimental measurements of the transonic flow over various wing-body/pylon/store model combinations. The experimental data were obtained at several angles of attack of the model combinations and at several Mach numbers in the transonic range. The experimental data will be used to aid in the development and evaluation of theoretical methods for predicting flow fields about three-dimensional configurations involving various wing-body/pylon/store combinations characteristic of modern fighter/bombers flying in the transonic range.

The experimental procedure involved attaching pylon and store models to the wing-body combination in two separate systematic model buildup sequences. At each stage of the first sequence, flow velocities and static pressures were taken in the vicinity of the store or those regions normally occupied by a store. Additionally, force/moment/surface pressure measurements were taken on the wing-body model. Also, flow velocities and static pressure measurements were taken on a cylindrical control surface as far removed from the tunnel centerline as possible to provide outer flow field information. The second model buildup sequence involved a special pressure-instrumented store that was mounted on the captive trajectory system (CTS), and which was then positioned in normal store-attached locations and also at various distances away from the pylon, in order to simulate a separated store. At each stage of this sequence, the detailed pressure distributions



and loading on the instrumented store were obtained from a single row of pressure taps located on the store by rolling the store through  $360^\circ$  at  $10^\circ$  roll angle increments.

The above described measurements were taken primarily over a range of four free-stream Mach numbers,  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ ,  $M_4 = 1.10$  and three angles of attack,  $\alpha = 0^\circ$ ,  $2^\circ$ ,  $5^\circ$ .

An existing wing-body model, used in previous AEDC tests described in ref. 1, was also employed in this program in combination with newly fabricated pylon and store models. The four percent thickness ratio wings of the existing wing-body model were used exclusively throughout this test, and the testing was performed solely in the AEDC 4T Tunnel.

This report, consisting of three volumes, presents the data obtained during the current program. This volume, Volume I, presents a summary report of the entire test program including a discussion of the uncertainties associated with the data obtained. Volume I also presents tunnel-empty flow survey data, pressure-store surface pressure/force/moment data, and wing-body surface pressure/force/moment data. Volumes II and III present the inner and outer flow-field data for the various wing-body/pylon/store configurations. Table I of each volume contains a summary of the data contained in that volume together with the page numbers and reference tables associated with the data contained in that volume.

An overall summary of the test data contained in each volume is presented below.

#### Volume

- I      Tunnel-empty flow surveys at  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  
          $M_3 = 1.05$ ,  $M_4 = 1.10$ .

Pressure-store (force/moment/surface pressure) data for configurations 11, 12, and 13 at Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ ,  $M_4 = 1.10$  and angles of attack  $\alpha = 0^\circ$ ,  $2^\circ$ ,  $5^\circ$ .

Wing-body (force/moment/surface pressure) data for configurations 12, 13, 21, 22, 24, 25, and 26, mainly at Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ ,  $M_4 = 1.10$  and angles of attack  $\alpha = 0^\circ, 1^\circ, 2^\circ, 3^\circ, 4^\circ, 5^\circ$ .

II Flow-field survey data for configurations 21 and 22 at Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$  and angles of attack  $\alpha = 0^\circ, 2^\circ, 5^\circ$ .

III Flow-field survey data for configurations 24, 25, and 26 at Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ ,  $M_4 = 1.10$  and angles of attack  $\alpha = 0^\circ, 2^\circ, 5^\circ$ .

Data reduction procedures used in the 4T Wind Tunnel facility to determine force and moment, pressure, and flow-field data are described in reference 2. The data uncertainties given in this report were provided by AEDC and are given in section 6 of this volume.

## 2. TEST HARDWARE

The test model hardware consists of a wing-body combination, fuselage pylon, right and left wing pylons, two dummy stores and an instrumented pressure store. Each pylon is attachable to a single fixed location on the wing-body.

The flow-field survey data were obtained using an existing AEDC 0.25-inch diameter conical probe with a  $20^\circ$  semi-apex angle. The body is an aluminum fuselage which is bored out and mounted on the 1.5-inch, 500 pound AEDC 6-1.50-1.12 M-A balance. The force and moment data on the wing-body combinations were obtained using this balance. The entire body contains 25 axially-aligned pressure orifices, 6 on the nose portion and 19 on the fuselage section, from which pressure data on the body surface were obtained.

The instrumented pressure store contains 19 pressure orifices arranged in a single row in the longitudinal direction. The pressure store, which is bored out, is mounted on the above described conical



probe, enabling pressure readings to be obtained at each of the 19 orifices. The two dummy stores contain no pressure orifices, but are identical in size to the pressure store.

Figure 1 illustrates the wing-body in combination with a dummy store on each wing and the conical flow-field probe supported on the AEDC 4T captive trajectory system (CTS). For a detailed description of the AEDC 4T test facility see reference 3. Figure 2 displays the pressure store supported on the CTS and in a store-separated position above one of the wing pylons. Figure 3 exhibits the wing-body in combination with a dummy store on the fuselage and the conical flow-field probe supported on the CTS. Figure 4 provides the geometric details of the wing-body model, and includes the positions of the 25 pressure orifices along the fuselage centerline. A sketch and coordinates of the four-percent thick airfoil which was used in the test are given in figure 5. An illustration of the instrumented pressure store with 19 pressure orifices and one of the two (identical) dummy stores is shown in figure 6. A sketch of the fuselage and wing pylons is provided in figure 7.

A planform view and a cross-sectional view of the wing-body in combination with pylons and attached stores are shown in figure 8. This figure provides the (X,Y) and (Y,Z) body fixed coordinates defining the positions of the wing, pylons, stores, and other locations of geometric interest. For example, Figure 8 shows that the nose tips of the attached wing stores have body-fixed coordinates  $(X,Y) = (12.023, \pm 3.500)$ . These coordinates are required in order to associate the tabulated pressure probe positions with the geometric features of the model configurations.

It is noted that the lengths pertaining to the model geometry given in the above figures are blue-print specifications. The actual model dimensions deviate slightly from these. In general, the deviations are sufficiently small that their effect on the data is less than the uncertainties in the data. (See section 6 for a complete discussion of the data uncertainties.)

Actual measured dimensions of the wing-body alone were provided in reference 1. The actual dimensions of the pylons and stores, and the (X,Y,Z) locations of the pylon ends and mounted store nose tips were also measured and are provided below. In the following discussion, "left" signifies the left-hand direction as viewed by a wind-tunnel observer situated behind the model, and looking forward, (i.e. upstream). The model is mounted upside down in the tunnel. The actual measured dimensions of the pylons are provided in figure 9. The measured body-fixed coordinates (of section 3) of the pylon ends (i.e. points A and B in figure 9) are given by:

		X	Y	Z
left pylon	fore	13.532	+3.506	-.818
	aft	16.762	+3.506	-.821
right pylon	fore	13.554	-3.495	-.815
	aft	16.780	-3.502	-.819
fuselage pylon	fore	12.721	0.000	-1.813
	aft	16.426	0.000	-1.813

The measured lengths of the dummy stores (interchangeable) are 6.378 and 6.377. The diameter of both dummy stores is 0.750.

The measured body-fixed coordinates of the nose tips of the mounted stores are given by:

	X	Y	Z
Left pylon mounted store:	11.967	3.502	-1.200
Right pylon mounted store:	11.964	-3.503	-1.195
Fuselage pylon mounted store:	11.218	0.000	-2.197

A detailed sketch of the conical flow-field probe and of the probe tip is provided in figure 10. We note that, as in the previous test (ref. 1), 0.0035-inch, #150 Carbolum grit was used on the body nose tip and wing leading edges to trip the boundary layer. Figure 11 displays the positions and width of the grit for both the body nose and wings.



### 3. DEFINITION OF AXES

A conventional set of orthogonal body-fixed axes is used as a frame of reference for the inner flow-field surveys near the body and positioning the pressure store in the pressure store tests. The origin of the wing-body combination system is at the tip of the nose, as illustrated in figure 12. Note that the model is mounted upside down in the tunnel. The fuselage pressure orifices are on the same side that probe measurements are taken, which is on the negative Z axis side. As seen by a person standing on the pressure orifices and looking toward the nose, the X axis is positive aft, the Y axis is positive to the left and the Z axis is positive down. In this report, the body-fixed coordinates will always be denoted by X, Y and Z.

A conventional set of orthogonal tunnel-fixed axes is used as a frame of reference for the outer flow-field surveys near the tunnel walls and is shown in figure 13. The origin of this reference frame is the nose of the model body when the wing-body is at an angle of attack of  $0^\circ$ . It is at this position that the body-fixed axes and tunnel-fixed axes coincide. Tunnel-fixed coordinates will always be denoted by XT, YT and ZT.

The sign convention adopted for the upwash and sidewash angles is provided in figure 14. In the figure, the wing-body is shown in the tunnel at a negative angle of attack to show the flow components with respect to the walls of the tunnel. In the body-axis system, positive angular values of sidewash and upwash correspond to positive values of their respective velocity components. As seen by an observer positioned on the pressure orifices and looking forward, positive upwash is a downward flow and positive sidewash is an outward flow along the left wing panel.

### 4. DESCRIPTION OF TESTS

Tests for which experimental data are reported herein are of three general types: (1) flow-field survey tests, (2) pressure-distribution



tests and (3) force and moment tests. The tests have been conducted at nominal free-stream Mach numbers in the range from 0.925 to 1.10 and at a nominal Reynolds number per foot of  $3.0 \times 10^6$ .

#### 4.1 Flow-Field Survey Tests

Flow-field survey tests were conducted with the tunnel empty and with various wing-body/pylon/store configurations at several angles of attack and several Mach numbers.

The conical probe used in the tests was calibrated at nominal Mach numbers of 0.925, 0.950, 1.05, and 1.10. The conical probe was used to obtain flow-field velocity components and upwash and sidewash angles, as well as other quantities at various locations of interest. The velocities and angles were calculated using five pressures measured with the probe. One is a pitot pressure, located on the tip of the probe, and the other four consist of two orthogonal pairs of static pressures located on the surface of the conical probe. These pressures are then used to deduce other local-flow quantities, such as Mach number and total pressure.

The tunnel-empty surveys were conducted at free-stream Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ , and  $M_4 = 1.10$ , with the purpose of investigating the flow quality in the region of the wing-body/pylon/store models. The tunnel-empty survey data along with the measurement grid coordinates used in obtaining this data are presented in this volume (cf. section 7).

The various configurations of the wing-body pylons and stores used in the flow-field survey tests are shown in figure 15 where they are designated as 21, 22, 24, 25 and 26. These diagrams represent cross-sectional views of the model configurations from the standpoint of a wind tunnel observer looking upstream from the rear of the model. The wing-body, pylons and dummy stores are indicated in these diagrams. The pressure store is not used in these configurations. The symbols "X" in figure 15 represent a cross-sectional view of the measurement

(Y,Z) grid positions at which the conical probe was traversed in the longitudinal direction to obtain flow field measurements.

Flow field measurements were obtained in the vicinity of each configuration (configurations 21, 22, 24, 25, and 26) at three angles of attack  $\alpha = 0^\circ, 2^\circ, 5^\circ$  and four free-stream Mach numbers  $M_1 = 0.925$ ,  $M_2 = 0.950$ ,  $M_3 = 1.05$ , and  $M_4 = 1.10$ . The experimental data as well as the measurement grid coordinates and other details concerning the flow-field survey data for these wing-body/pylon/store configurations will be presented in Volumes II and III of this report.

#### 4.2 Pressure Distribution Tests

Longitudinal pressure distributions were obtained along the pressure store surface and along the fuselage of the wing-body combination. The pressure distribution on the pressure-store surface was obtained from the single row of pressure orifices shown in figure 6 by rolling the store through  $360^\circ$  at  $10^\circ$  roll angle increments. The pressures at these orifices were taken at each roll angle interval, allowing the forces and moments on the pressure store to be computed numerically. The pressure store was used in conjunction with various configurations of the wing-body, pylons and stores. These configurations are labeled 11, 12, and 13 and are illustrated schematically in figure 16. Configuration 11 consists of the instrumented store alone. Configurations 12 and 13 consist of combinations of the instrumented store with other model components. In each of the configurations 12 and 13, the instrumented store was positioned in four locations simulating one store-attached and three store-separated locations. Sketches of these four positions in the crossflow (Y,Z) plane, labeled position 1 through position 4, are illustrated for each configuration in figure 16 for the highest Mach number  $M = M_4$ . A side view of the four positions for configuration 13 for  $M = M_4$  is provided in figure 17. The positions of the pressure store corresponding to the Mach numbers  $M_1$ ,  $M_2$  and  $M_3$  differ from those corresponding to the Mach number  $M_4$  only in the fact that the interval of separation between the first three positions is one store-radius in the former case and one store-diameter in the latter case. We note that the pressure store in position 1 was actually



placed at a small distance ( $< .10$ -inch) from the pylon in order to insure noninterference with the pylon as the store was rolled.

Pressure measurements were taken on the pressure store for the configurations 11, 12, and 13 at the Mach numbers  $M1 = 0.925$ ,  $M2 = 0.975$ ,  $M3 = 1.05$ ,  $M4 = 1.10$  and angles of attack  $\alpha = 0^\circ$ ,  $2^\circ$ , and  $5^\circ$ . The pressure-store pressure distribution data are presented in this volume, Volume I (cf. section 8).

The longitudinal pressure distributions on the fuselage of the wing-body combination were obtained along the single row of fuselage pressure orifices shown in figure 4. Note that this row of pressure orifices is on the negative Z-side of the body fixed axis system (i.e., the orifices face the top of tunnel) and therefore is on the store side of the fuselage. Pressure measurements at these fuselage orifices were taken for the configurations 21, 22, 24, 25, and 26, mainly at Mach numbers  $M1 = 0.925$ ,  $M2 = 0.950$ ,  $M3 = 1.05$ ,  $M4 = 1.10$  and angles of attack  $\alpha = 0^\circ$ ,  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$ ,  $4^\circ$ ,  $5^\circ$ . Additionally, pressure measurements were taken at these fuselage orifices for the configurations 11 and 12 - but with the pressure store located as far as possible behind the wing-body model.

The fuselage longitudinal pressure distribution data is presented in this volume, Volume I (cf. section 9).

#### 4.3 Force and Moment Tests

Force and moment data were obtained for the pressure store and for the wing-body combination.

Force and moment data on the pressure store were obtained for the configurations 11, 12, and 13 at the Mach numbers  $M1$ ,  $M2$ ,  $M3$ ,  $M4$  and the angles of attack  $\alpha = 0^\circ$ ,  $2^\circ$ , and  $5^\circ$ . These forces and moments were not measured directly, but were obtained through numerical integration of the pressure store surface pressures. The pressure-store force and moment data are presented in this volume, Volume I (cf. section 8).

Wing-body force and moment data were obtained for the configurations 21, 22, 24, 25, and 26 using the 1.5-inch, 500 pound AEDC 6-1.50-1.12 M-A balance upon which the fuselage was mounted. These data were obtained mainly at Mach numbers M1, M2, M3, M4 and angles of attack  $\alpha = 0^\circ, 1^\circ, 2^\circ, 3^\circ, 4^\circ, \text{ and } 5^\circ$ . Additionally, wing-body force and moment data were obtained for configurations 12 and 13, but with the pressure store located as far as possible behind the wing-body model at the Mach numbers M1, M2, M3, M4 and angles of attack  $\alpha = 0^\circ, 2^\circ, \text{ and } 5^\circ$ .

The wing-body force and moment data are presented in this volume, Volume I (cf. section 9).

## 5. FLOW FIELD SYMMETRY

This section of the data report contains an assessment of the symmetry of the flow-field survey tests previously described in this report. Specifically, this refers to comparisons of flow-field data for symmetric configurations taken at points whose Z values are identical, but whose Y locations differ in sign only (side-to-side symmetry). These comparisons provide a good measure of the precision of positioning the wing-body/pylon/store configuration and probe with respect to one another, the symmetry of the configuration and flow field, and a check of the data reduction procedure.

Some typical results of the symmetry comparisons are shown in figures 18 and 19. Figure 18 shows comparisons of pressure (CPL), upwash AAL, and sidewash (SWL) for configuration 21 (i.e. the wing-body without pylons or stores) for the positions (Y,Z) = ( $\pm 2.750, -1.230$ ) at angle of attack  $\alpha = 5^\circ$  and Mach numbers  $M_\infty = 0.950$  and  $M_\infty = 1.05$ . It is seen in figure 18 that the comparisons of pressure, upwash and sidewash for these cases are very good and well within the accuracy of the data ( $\pm .40^\circ$  for upwash and sidewash and .03 for CPL, see section 6).

Figure 19 shows symmetry comparisons made at the same position, angle of attack and Mach numbers for configuration 24, i.e. the wing-body with the two wing pylons and two attached wing stores. It is



seen in figure 19 that the comparisons of upwash and pressure are good. The sidewash comparisons are good, with the greatest differences in the comparisons occurring near  $X \approx 13.0$  and  $X \approx 17.0$  for the case  $M_\infty = 0.950$ . These differences are attributable to several factors. First, the difference in the measurements is within, or very nearly within, the accuracy of the data ( $\pm .40^\circ$ ). Second, the right and left pylons have slightly different heights due to imperfections in the machining of those parts. As shown in Figure 9, the height of the left ( $Y > 0$ ) pylon is .745-inches whereas the height of the right ( $Y < 0$ ) pylon is .729-inches. These differences could effect the sidewash measurement, although it is felt that it would be generally a small effect. Third, the largest differences in sidewash occur in regions of very rapid variation in the flow field data. In such regions slight imperfections in the model or probe positioning have a greater effect on the data than in regions of mild variation. Fourth, it is known from the tunnel-empty surveys that a sidewash error of approximately  $.25^\circ$  is present in the region of interest.

The overall good agreement shown in the comparisons of figures 18 and 19, together with many other symmetry comparisons not shown graphically in this report, but included in the tabulated flow-field survey data of Volumes II and III, indicates accurate positioning of the wing-body configuration in the tunnel and of the probe with respect to the wing-body model, and lends confidence to both the test procedures and data reduction schemes used to obtain this data.

## 6. DATA UNCERTAINTIES

Uncertainties in the aerodynamic coefficients, local condition flow angles, and probe position for the 4T Wind Tunnel were provided by ARO and are presented below. Examining the uncertainties associated with probe angle ( $\alpha_{\text{probe}}$ ) and upwash and sidewash angles (AAL, SWL) there exists a maximum uncertainty of  $\pm .40^\circ$  for the upwash and sidewash measurements.

## Force and Moment Data

Uncertainty ( $\pm$ ), Absolute

<u>CN</u>	<u>CY</u>	<u>CA</u>	<u>CLM</u>	<u>CLN</u>	<u>CLL</u>
0.006	0.002	0.003	0.004	0.001	0.002

## Probe Position

Uncertainty ( $\pm$ ), Absolute

<u>X, in.</u>	<u>Y, in.</u>	<u>Z, in.</u>	<u><math>\alpha_{\text{probe}}</math>, deg</u>
0.05	0.05	0.05	0.15

## Flow Angles

Uncertainty ( $\pm$ ), Absolute

<u>AAL, deg</u>	<u>SWL, deg</u>
0.25	0.25

## Local Conditions

Uncertainty ( $\pm$ ), Absolute

<u>CPL</u>
0.03

## Angle of Attack

<u><math>\alpha</math>, deg</u>
0.10



## 7. TUNNEL-EMPTY SURVEY DATA

Figure 20 shows the grids employed in the tunnel-empty surveys. These surveys were run at Mach numbers M1, M2, M3 and M4 at a nominal free-stream Reynolds number per foot of  $3.0 \times 10^6$  to ascertain the quality of the tunnel-empty flow field.

Volume I contains all tunnel-empty survey data. Table II is a reference table which gives the page number in Volume I of all the tunnel-empty survey data. Columns 1, 2, and 3 in Table II indicate the XT, YT, and ZT ranges, respectively, of each tunnel-empty traverse. Column 4 indicates the increment for the axis along which the traverse is being carried out. Columns 6, 7, 8 and 9 indicate the page number in Volume I of the corresponding traverse at the free-stream Mach number M1, M2, M3, and M4, respectively. Note that all tunnel-empty survey positions are stated in terms of the tunnel-fixed coordinate system (XT, YT, ZT), previously discussed in section 3.

The data are presented in tabular form on pages 1 through 21 of this volume. The heading on each page contains the test number, the part number, the Reynolds number per foot, the angle of attack of the model (not applicable for these tests), the configuration number (always designated by 20 for these tests), the survey number and angle of attack of the CTS pressure probe (nominally zero for these tests).

Below the heading information are the data obtained during each test. The first four columns indicate the sequential indexing number for referencing data obtained during one part (PNT) and the location of the probe in the tunnel axis XT, YT, or ZT direction. The wind tunnel free-stream quantities are in columns five through nine, and are Mach number (M), velocity (VM, ft/sec), total pressure (PT, psfa), dynamic pressure (Q, psf), and total temperature (TT, °F). Following these quantities are local quantities as measured by the probe or calculated from probe measurements. These local quantities are local Mach number (ML), ratio of local to free stream velocity (VML/VM), ratio of local to free-stream total pressure (PTL/PT),



local pressure coefficient (CPL), ratio of local velocity components in the tunnel axis X, Y, and Z directions, respectively, to the free-stream velocity ( $U_T/VM$ ,  $V_T/VM$  and  $W_T/VM$ , respectively), and the upwash and sidewash angles referenced to tunnel-axis coordinates (AATL and SWTL, respectively). The positive sense of the upwash and sidewash is shown in figure 14.

An example of the results derived from the tunnel-empty flow field surveys is shown graphically in figure 21. Ideally, the upwash and sidewash should be zero in all tunnel-empty surveys. However, slight deviations from zero upwash and sidewash are apparent. These deviations can be attributed to tunnel flow quality, probe measurement error, probe positioning error or a combination of these causes. The magnitudes of the deviations are less than  $.40^\circ$  in all cases and less than  $.25^\circ$  in most cases and are therefore within the accuracy of the measurements ( $\pm .40^\circ$ , see section 6).

#### 8. PRESSURE STORE FORCE/MOMENT/SURFACE PRESSURE DATA

This section presents a description of the force/moment/surface pressure distribution data taken on the instrumented pressure store in the configurations 11, 12, and 13 at the Mach numbers M1, M2, M3, and M4 and at the attack angles  $\alpha = 0^\circ$ ,  $2^\circ$  and  $5^\circ$ . These tests, performed at a nominal Reynolds number per foot of  $3.0 \times 10^6$ , are outlined and indexed in Tables III and IV of this volume.

Volume I contains all pressure-store data. Table III is a reference table which gives the page number in Volume I of the pressure store data for the Mach numbers M1, M2, and M3. Table IV provides corresponding results for the Mach number M4.

The first column of Tables III and IV indicates the configuration (11, 12 or 13) which contains the pressure store as shown in figure 16. The second column indicates the position (1, 2, 3 or 4) within the given configuration (12 or 13) in which the pressure store was placed. As explained in section 5.2, there are three store-separated positions and one store-attached position for each

configuration 12 and 13. Columns 3, 4 and 5 indicate the X, Y and Z location in body-fixed coordinates of the pressure store nose-tip. These nose-tip coordinates specify the exact locations of the pressure store because the pressure store is always positioned parallel to the wing-body. Columns 6 through 14 indicate the page number of the pressure store data (force, moments and pressure distribution on the store) at the corresponding Mach number and angle of attack.

The pressure-store data are presented in tabular form on pages 22 through 129 of this volume. The heading on each page contains the test number, part number, free-stream Mach number, Reynolds number per foot, free-stream total pressure (PT, psfa), free-stream static pressure (P, psfa), dynamic pressure (Q, psf), free-stream velocity (V1, ft/sec) and total temperature (TT, °F). The next line of heading contains the angle of attack of the configuration, the configuration, survey number (note: the last digit of the survey number is the position), angle of attack of the pressure store (ALFAS, which is nominally the same as ALFA), atmospheric pressure (PBAR, psfa) and the X, Y, and Z coordinates of the pressure-store nose-tip in the body-fixed system.

Below the heading information are the data obtained in each test. The first column indicates the sequential indexing number for referencing data obtained during one part (PNT). The second column indicates the roll angle of the pressure orifice plane according to the store roll angle convention described in figure 22. The roll angles are measured at 10° increments. The remaining 19 columns represent the pressure coefficients measured at each of the 19 pressure-store orifices. These pressure-store orifices are numbered 1 through 19 as shown in figure 6. Below the pressure coefficient data are the pressure-store orifice numbers 2 through 19, and the axial distance (XS, ft) of the corresponding orifice number from the pressure-store nose-tip. Corresponding to each XS location are the calculated values of CNX, CYX, and CAX. CNX is the pressure-store



normal-force distribution per foot, CYX is the pressure-store side-force distribution per foot and CAX is the pressure-store axial distribution per foot. The last line on the page contains the values, numerically computed from the above data, of the pressure-store normal-force coefficient (CN), side-force coefficient (CY), axial-force coefficient (CA), pitching-moment coefficient (CLM), and yawing-moment coefficient (CLN).

The numerical formulas which were used to calculate the quantities CNX, CYX, CAX, CN, CY, CA, CLM and CLN can be found by referring to these quantities in the nomenclature section of this volume.

#### 9. WING-BODY FORCE/MOMENT/SURFACE PRESSURE DATA

This section presents a description of the force, moment and surface pressure data taken on the wing-body in configurations 21, 22, 24, 25 and 26, mainly at the free-stream Mach numbers M1, M2, M3, M4 and angles of attack  $\alpha = 0^\circ, 1^\circ, 2^\circ, 3^\circ, 4^\circ$ , and  $5^\circ$ . Data of this type were also obtained for the configurations 12 and 13 without the pressure store in those configurations. The tests, performed at a nominal Reynolds number per foot of  $3.0 \times 10^6$ , are outlined and indexed in Table V of this volume. The tabulated data are presented on pages 130 through 195 of this volume.

Volume I contains all wing-body force/moment/surface pressure data. Table V is a reference table which gives the page numbers in Volume I of this data for a given configuration and Mach number. Note that in Table V, configurations 12 and 13 refer to those configurations as described in figure 16, but without the pressure store.

The data are arranged such that there are two pages for each Mach number. The first page presents the surface pressures obtained at each of the 25 pressure orifices at each angle of attack and the second page presents the force and moment data obtained at each angle of attack. Note that some Mach numbers have four pages of data. In these cases, the first two pages represent calibration

data at angles of attack bracketing the desired angles, while the last two pages represent final data at the desired angles of attack.

The data on each of the two pages will now be described. The heading on both pages is identical and contains the test number, part number, free-stream Mach numbers, total pressure, static pressure, Reynolds number per foot, velocity, dynamic pressure, total temperature, configuration and survey number.

Below the heading on the first page of each Mach number section are the surface pressure data obtained at each of the 25 pressure orifices as shown in figure 4. These orifices are designated CPS1 through CPS25. Also shown on the first page are the corresponding angle of attack and sequential indexing number (PNT).

Below the heading on the second page of each Mach number section are the data obtained during each force and moment test. The result for the force-and-moment tests include the wing-body model angle of attack (ALFA), the normal-force coefficient (CNF), the side-force coefficient (CY), the forebody axial-force coefficient (CAF), the forebody pitching-moment coefficient (CLMF), the yawing-moment coefficient (CLN), the rolling-moment coefficient (CLL), and the base axial-force coefficient (CAB). The positive sense of these forces and moments is shown in figure 23.

Two notes regarding the surface pressure data on the wing-body will now be made. In some cases technical difficulties with a pressure transducer resulted in invalid data at the 19th pressure orifice. An example of this is provided by the surface-pressure data for configuration 13 on page 138. There it is seen that the surface pressure under the heading CPS19 is 9.99, which indicates invalid data. The second note concerns the fact that the configurations 25 and 26 have invalid surface pressure data at the 13th to 17th (inclusive) pressure orifices owing to the blockage of these pressure orifices by the fuselage pylon. This invalid surface-pressure data is recorded as 9.999. An example of this can be found for configuration 26 on page 192. The invalid surface pressure data will not affect the recorded



values of the wing-body CNF, CY, CLMF, CLN, CLL and CAB because, as discussed in section 4.3 these values were determined directly from the AEDC force balance.

#### REFERENCES

1. Perkins, S. C., Jr., Stahara, S. S. and Hemsch, M. J.: Data Report for a Test Program to Study Transonic Flow Fields About Aircraft with Application to External Stores. NEAR TR 138, July 1977.
2. Rittenhouse, L. E. and Kaupp, H.: Procedures and Computer Program for Conducting Force Tests in the PWT 4T Facility. Revised Sept. 5, 1973.
3. Test Facilities Handbook, Tenth Edition, Arnold Engineering Development Center, Arnold Air Force Station, TN, May 1974.

TABLE I.- SUMMARY OF TABULATED  
DATA IN VOLUME I

$$Re/ft = 3.0 \times 10^6$$

Reference Table	Test	Pages
II	Tunnel-empty surveys	1-21
III, IV	Pressure-store force/moment/ surface pressure data	22-129
V	Wing-body force/moment/ surface pressure data	130-195



[illegible]



TABLE III. PRESSURE-STORE DATA FOR MACH NUMBERS M1, M2, M3

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Config- uration	Position	X	Y	Z	$\alpha = 0$	$\alpha = 2$	$\alpha = 5$	$\alpha = 0$	$\alpha = 2$	$\alpha = 5$	$\alpha = 0$	$\alpha = 2$	$\alpha = 5$
11		11.218	0.000	-2.297	22	23	24	25	26	27	28	29	30
12	1	11.218	0.000	-2.297	31	35	39	43	47	51	55	59	63
	2			-2.572	32	36	40	44	48	52	56	60	64
	3			-2.947	33	37	41	45	49	53	57	61	65
	4	12.718			34	38	42	46	50	54	58	62	66
13	1	11.967	3.500	-1.300	67	71	75	79	83	87	91	95	99
	2			-1.575	68	72	76	80	84	88	92	96	100
	3			-1.950	69	73	77	81	85	89	93	97	101
	4	13.467			70	74	78	82	86	90	94	98	102

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Config-uration	Position	X	Y	Z	$\alpha = 0$	$\alpha = 2$	$\alpha = 5$						
11		11.218	0.000	-2.297	103	104	105						
12	1	11.218	0.000	-2.297	106	110	114						
	2			-2.947	107	111	115						
	3			-3.697	108	112	116						
	4	12.718			109	113	117						
13	1	11.967	3.500	-1.300	118	122	126						
	2			-1.950	119	123	127						
	3			-2.700	120	124	128						
	4	13.467			121	125	129						



TABLE V. WING-BODY FORCE/MOMENT/SURFACE PRESSURE

[illegible]

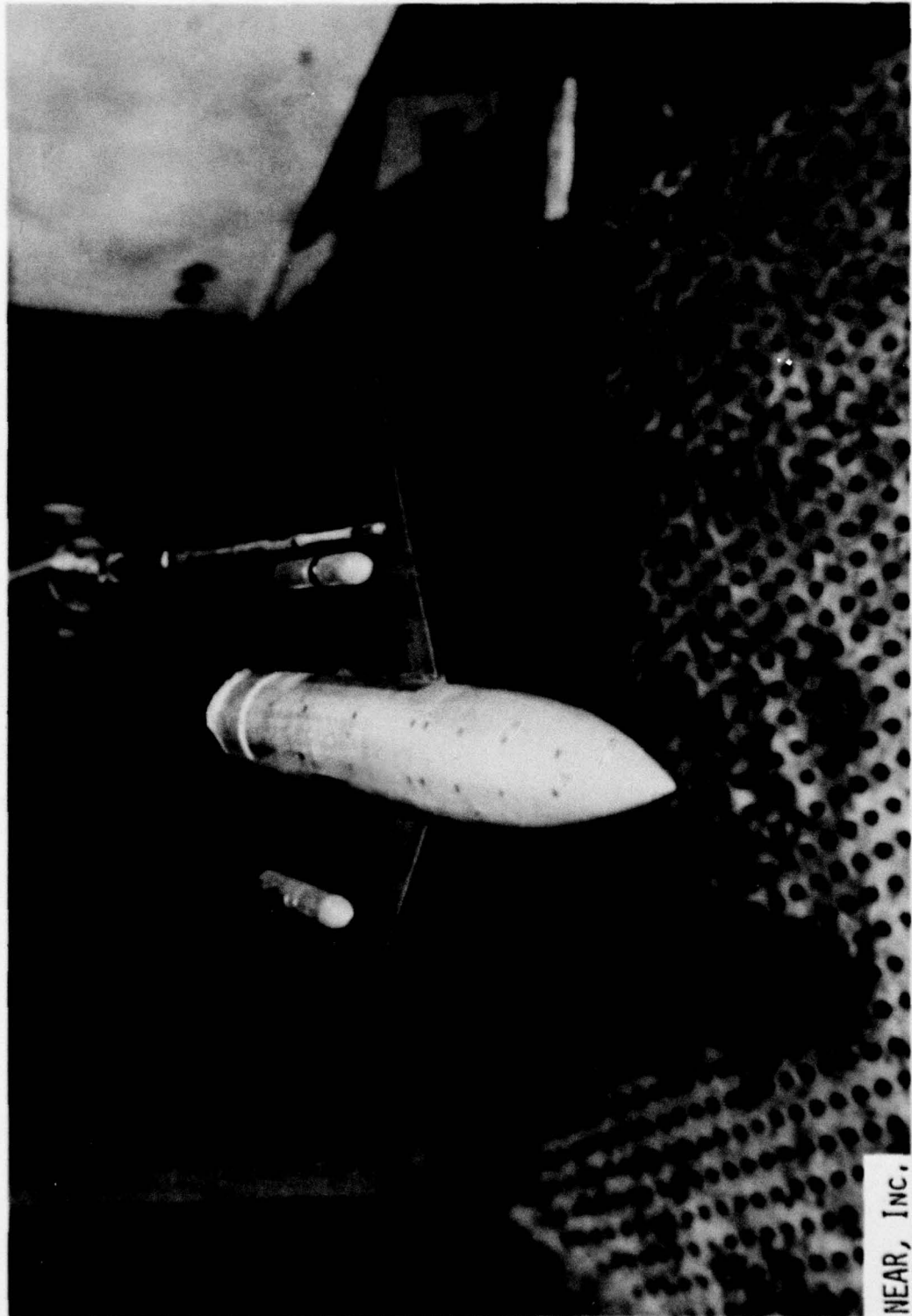


Figure 1.- Wing-body in combination with dummy store,  
on each wing and conical flow-field survey probe.



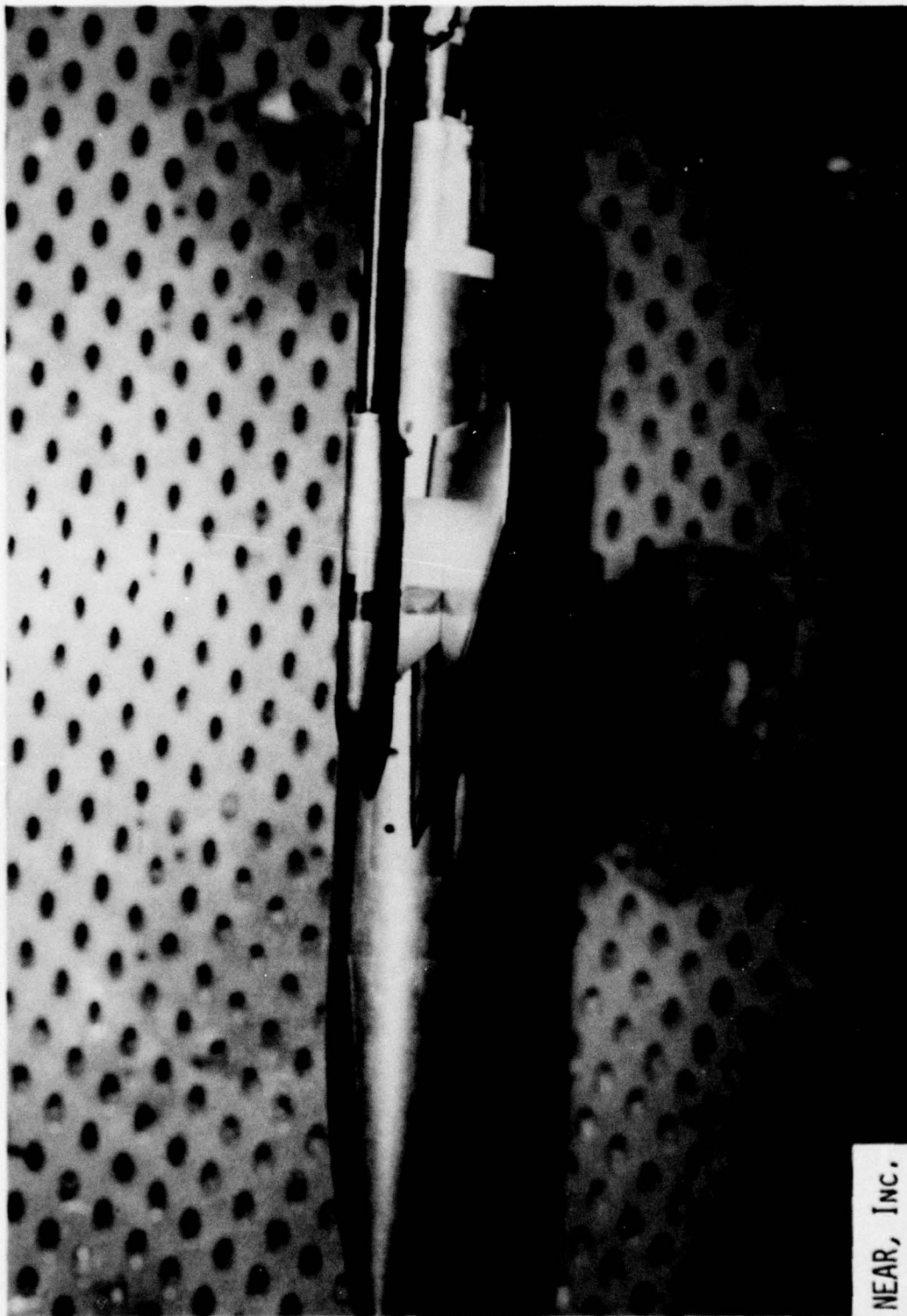


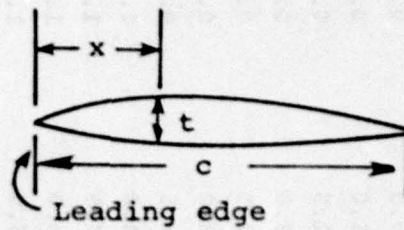
Figure 2.- Wing-body in combination with wing pylon and instrumented pressure store in store separated position.



Figure 3.- Wing-body in combination with dummy store on fuselage and conical flow-field survey probe.







$x/c, \%$	$t/2c, \%$	
0	0	$t_{\max} = 2(7.6) (0.01998)$
2.5	0.325	$= 0.304" \quad @ \text{ root}$
5.0	0.548	
7.5	0.736	$t_{\max} = 2(2) (0.01998)$
10.0	0.900	$= 0.080" \quad @ \text{ tip}$
15.0	1.175	
20.0	1.399	
25.0	1.576	Leading-edge radius: 0.1 percent $c$
30.0	1.726	
35.0	1.837	Trailing-edge radius: 0.01 percent $c$
40.0	1.921	
45.0	1.974	
50.0	1.998	
55.0	1.989	
60.0	1.955	
65.0	1.885	
70.0	1.777	
75.0	1.620	
80.0	1.406	
85.0	1.085	
90.0	0.738	
95.0	0.369	
100.0	0	

Figure 5.- Coordinates of 4-percent thick airfoil.



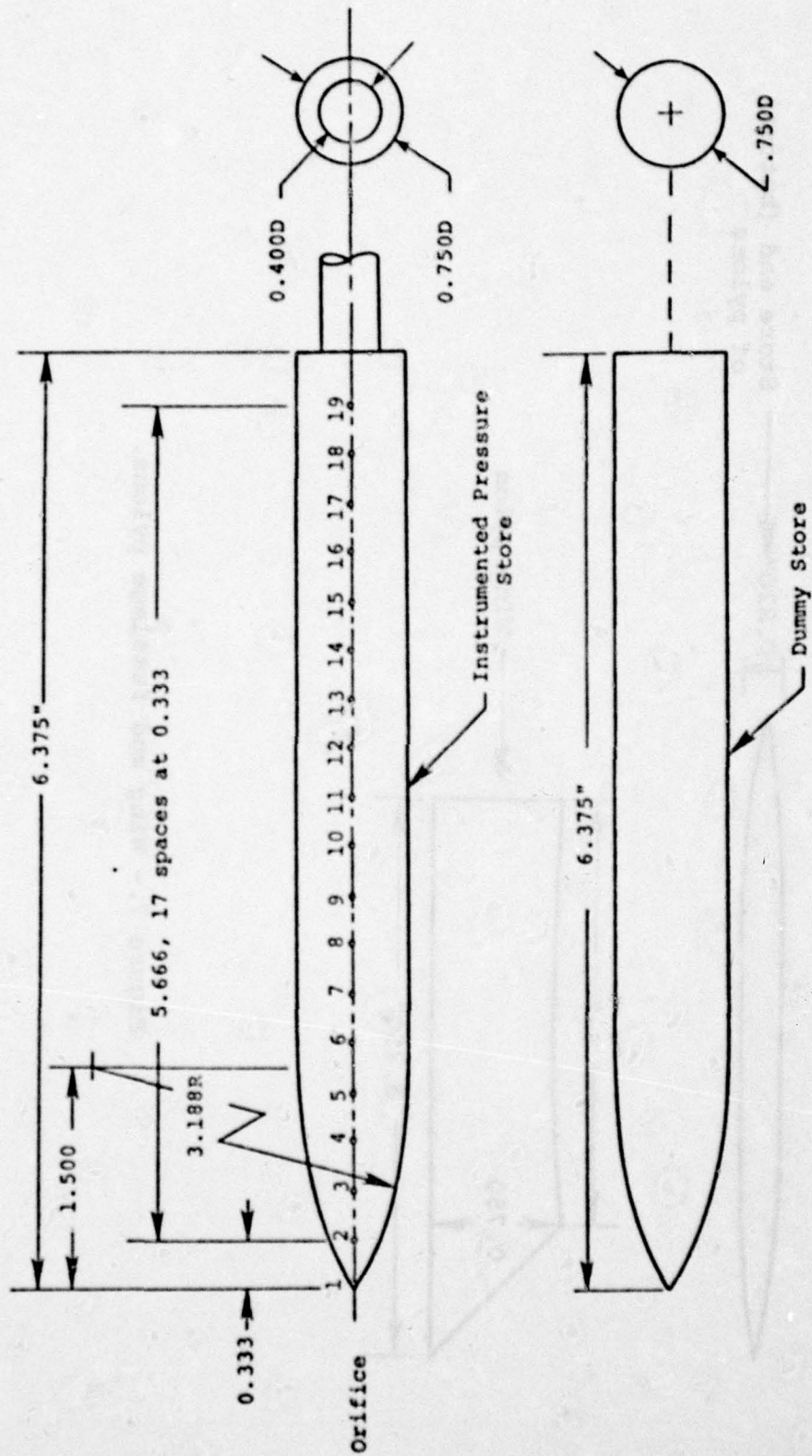


Figure 6.- Instrumented pressure store and dummy store.

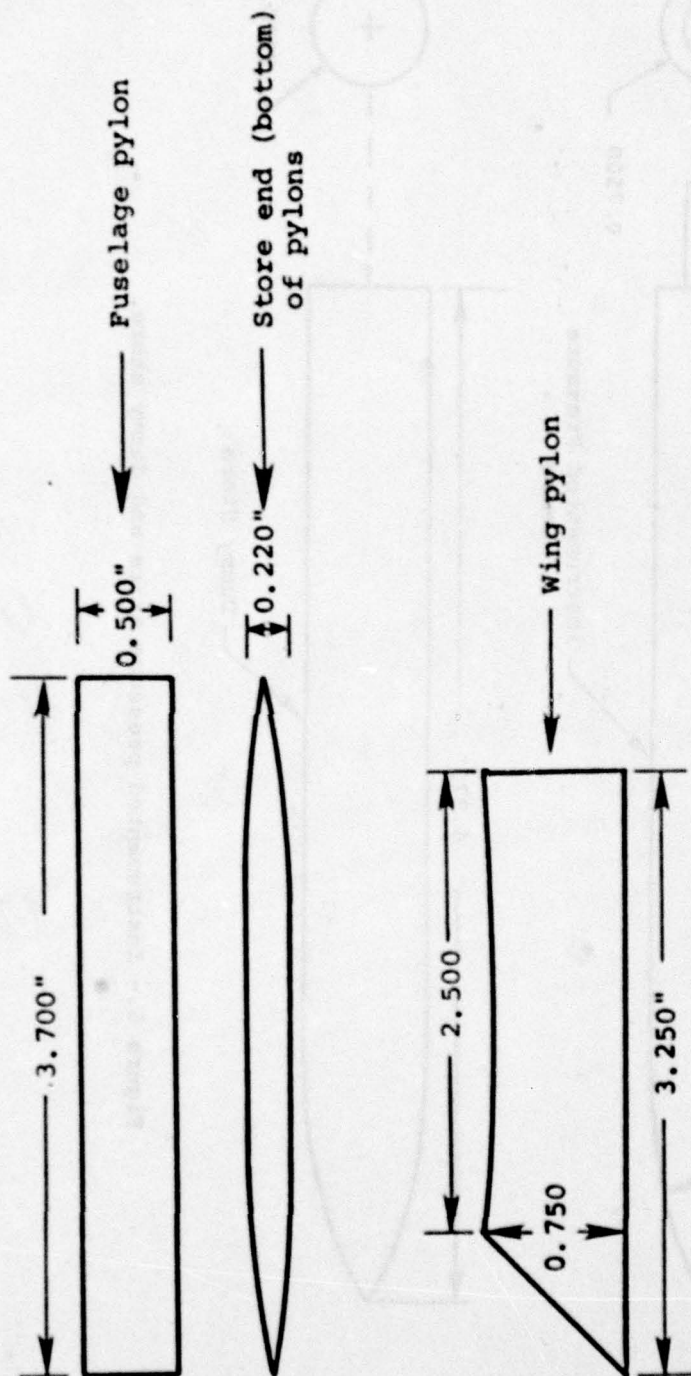
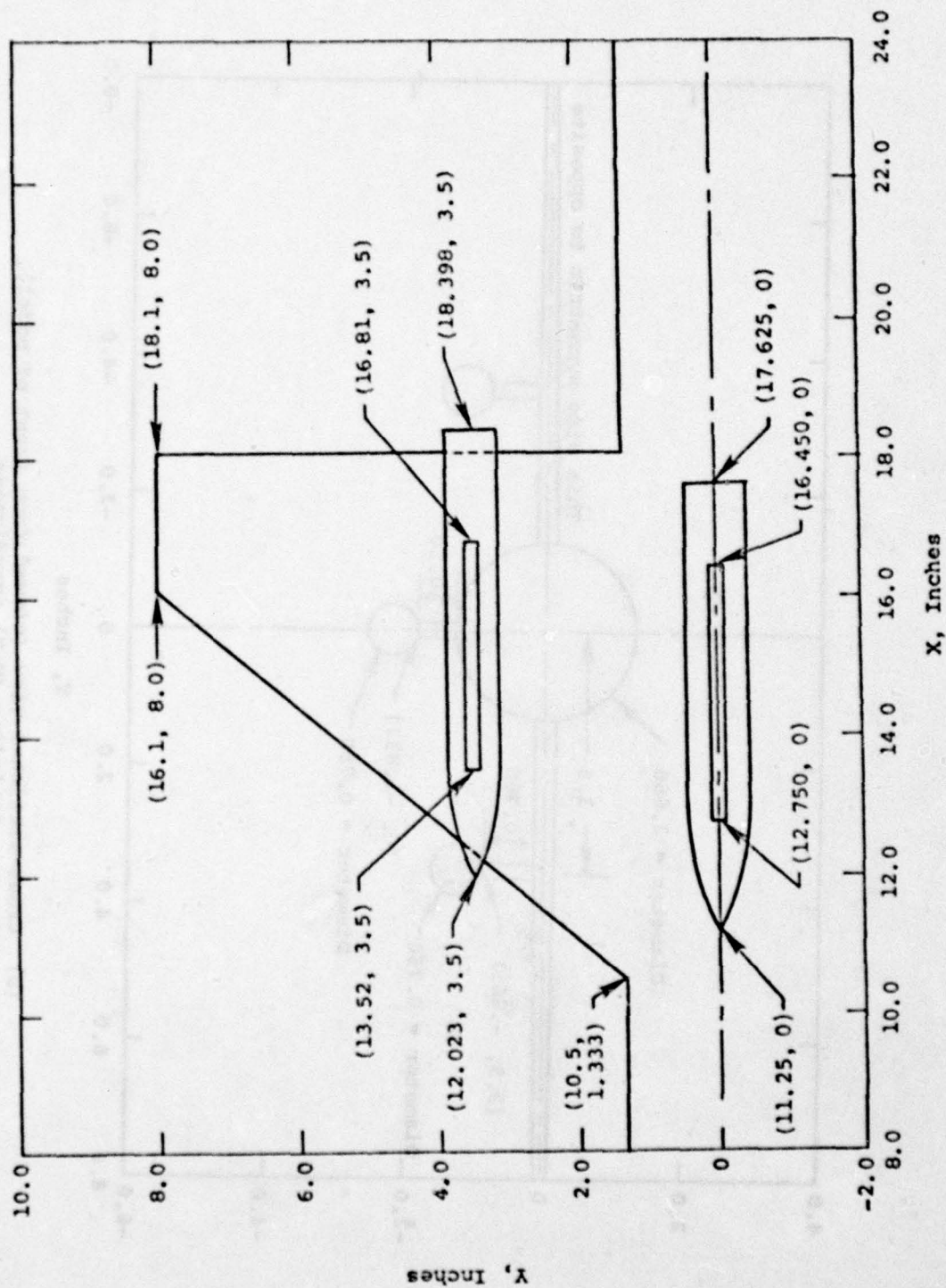


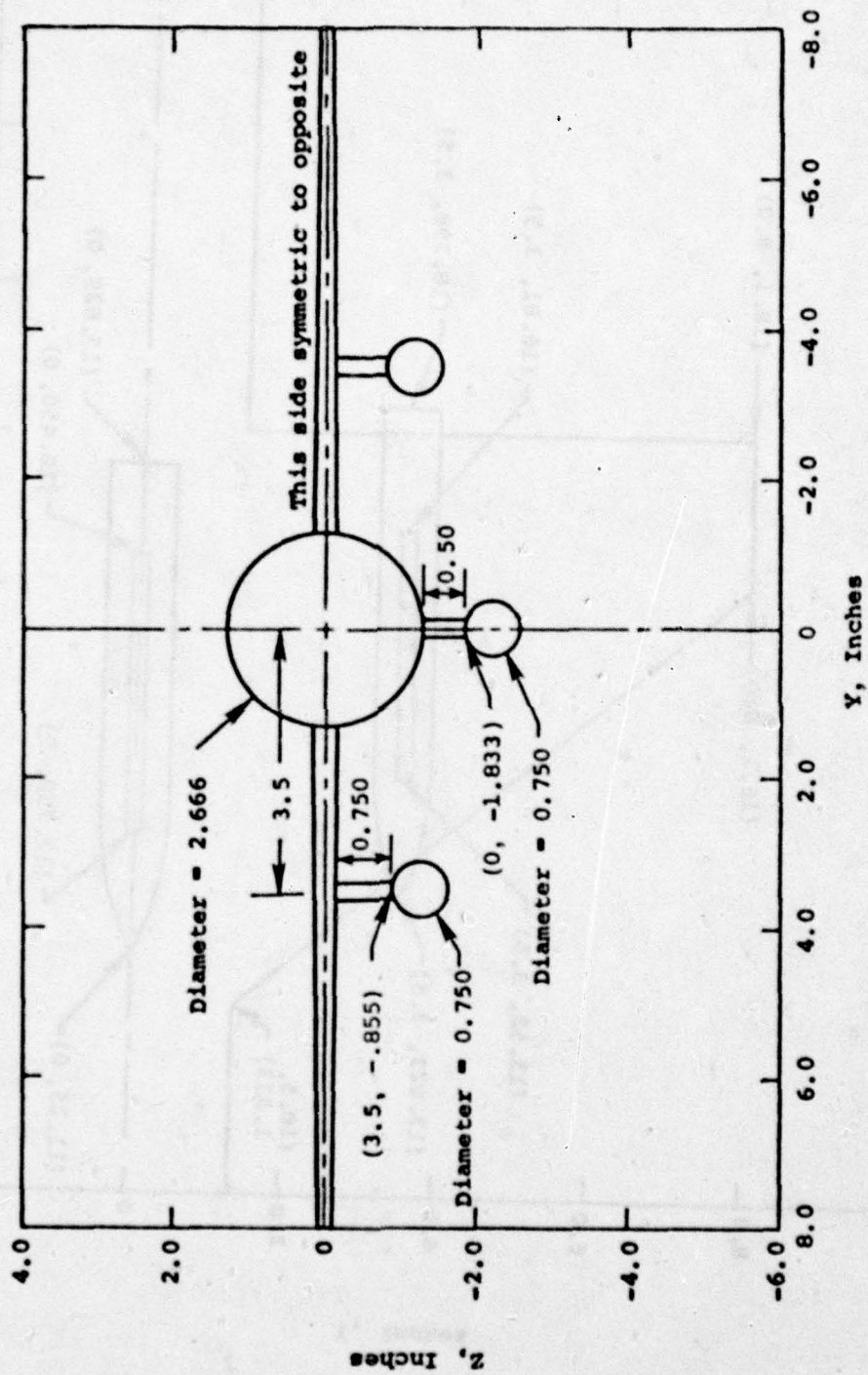
Figure 7.- Wing and fuselage pylons.





(a) Planform view, including (X,Y) coordinates.

Figure 8.- Wing-body with pylons and stores, including body-fixed coordinates.



(b) Cross-sectional view (viewed from front of model), including (Y,Z) coordinates.

Figure 8.- Concluded.



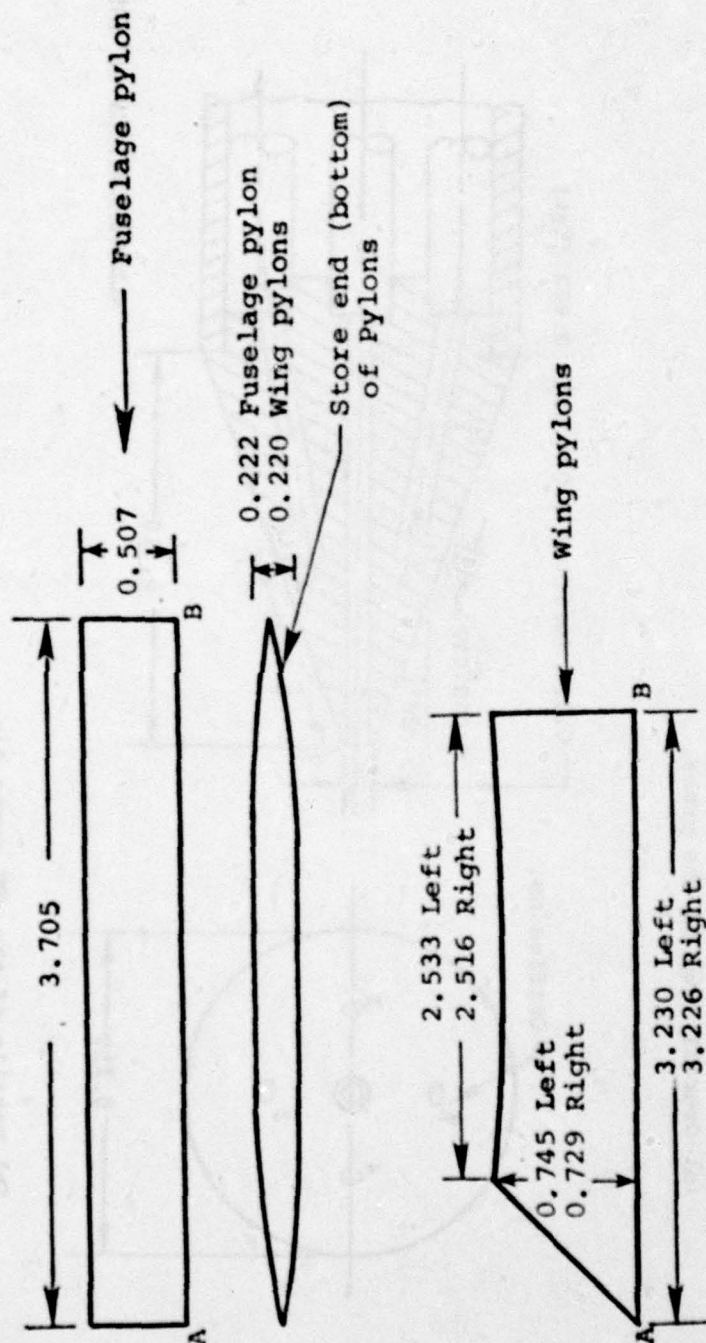
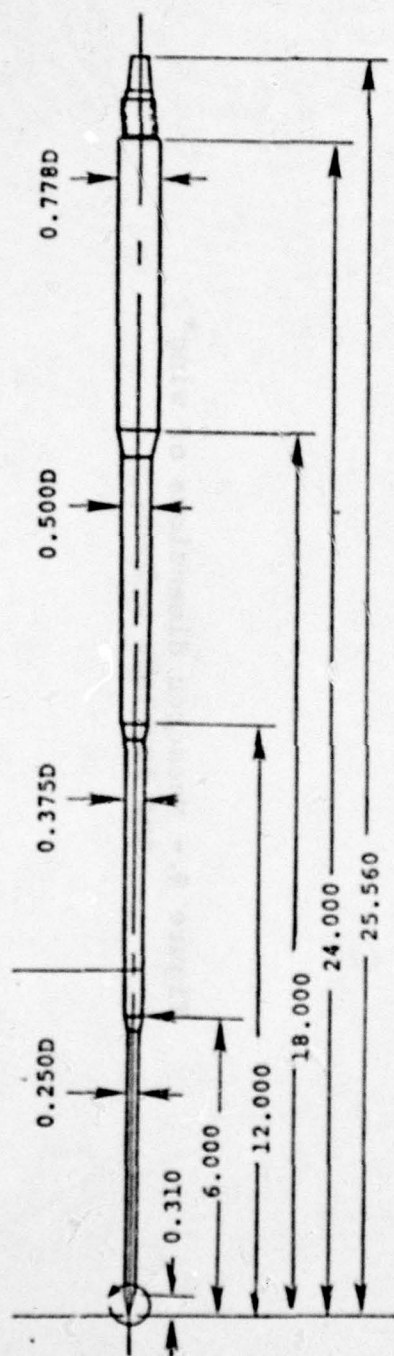
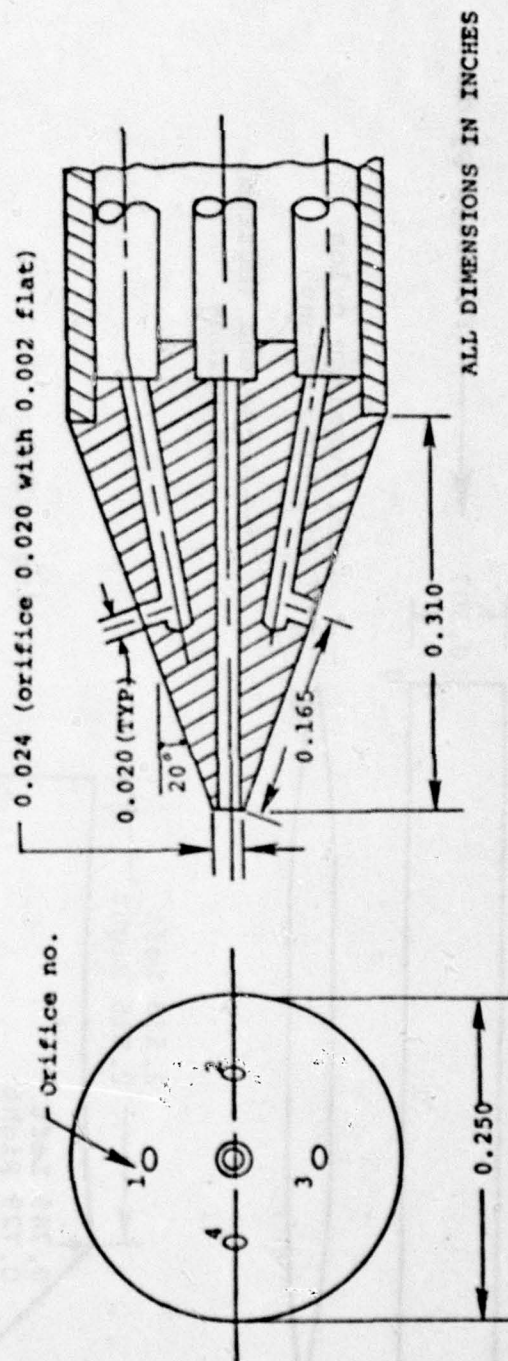


Figure 9.- Measured dimensions of wing and fuselage pylons.



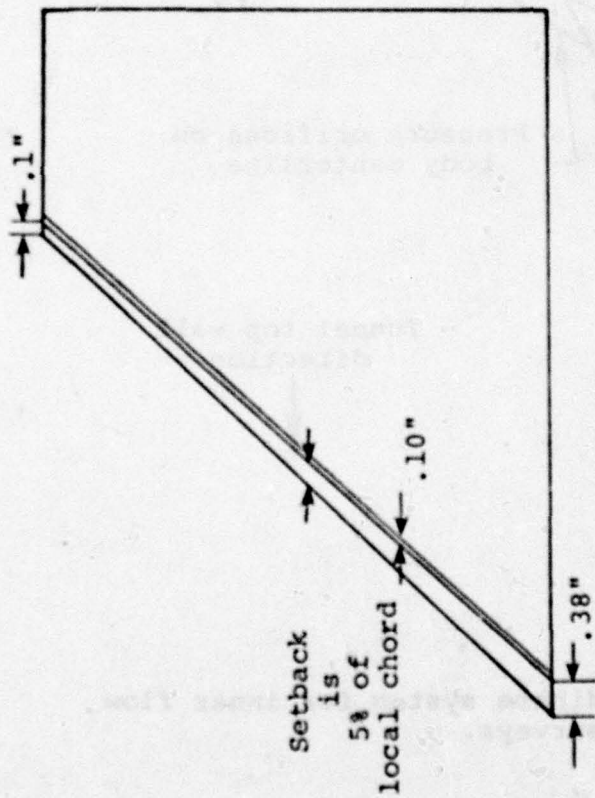
(a) Overall view of the probe.



(b) Details of the 40° probe tip.

Figure 10.- Details and dimensions of the  $40^\circ$  apex angle flow-field probe.





(a) Planform view of wing.



(b) Side view of body.

Figure 11.- Position and size of the Carbolium grit on the wings and body nose.

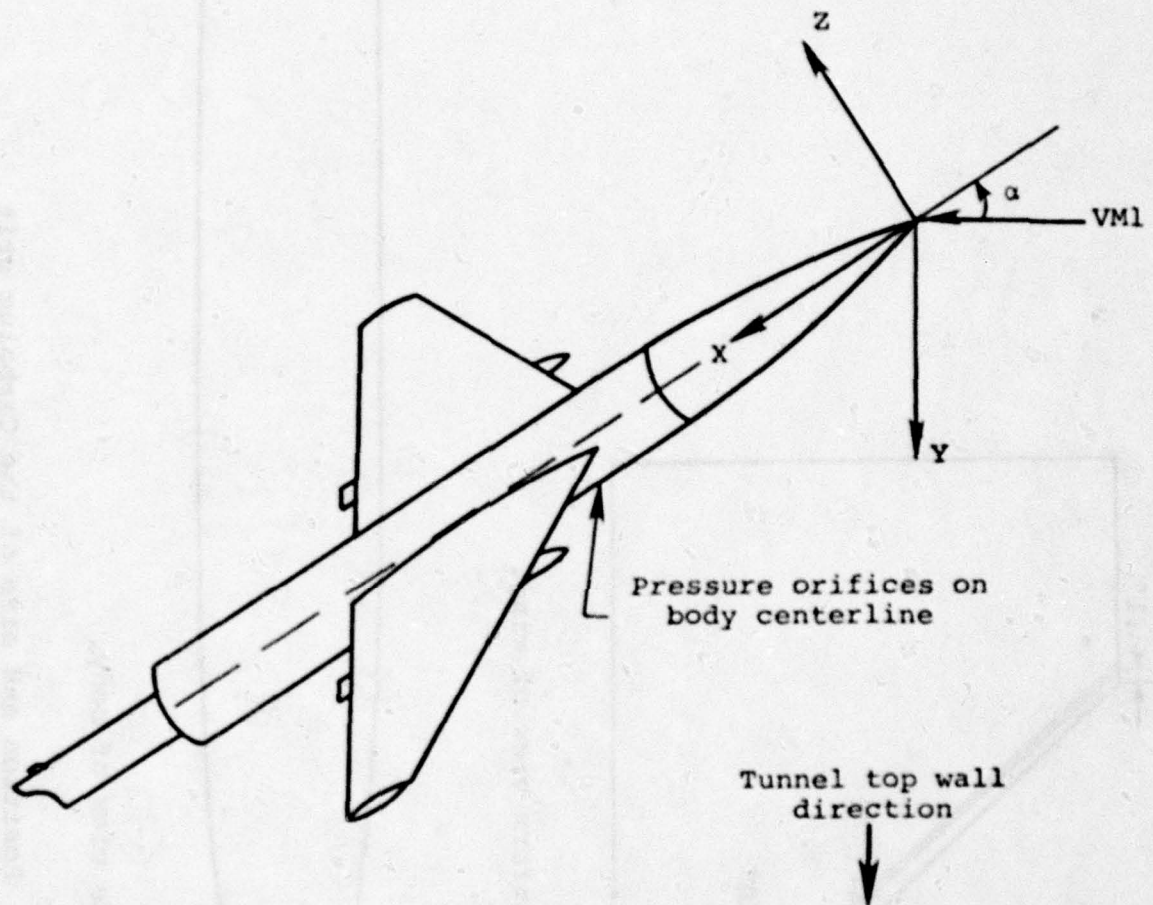


Figure 12.- Body-fixed coordinate system for inner flow field surveys.



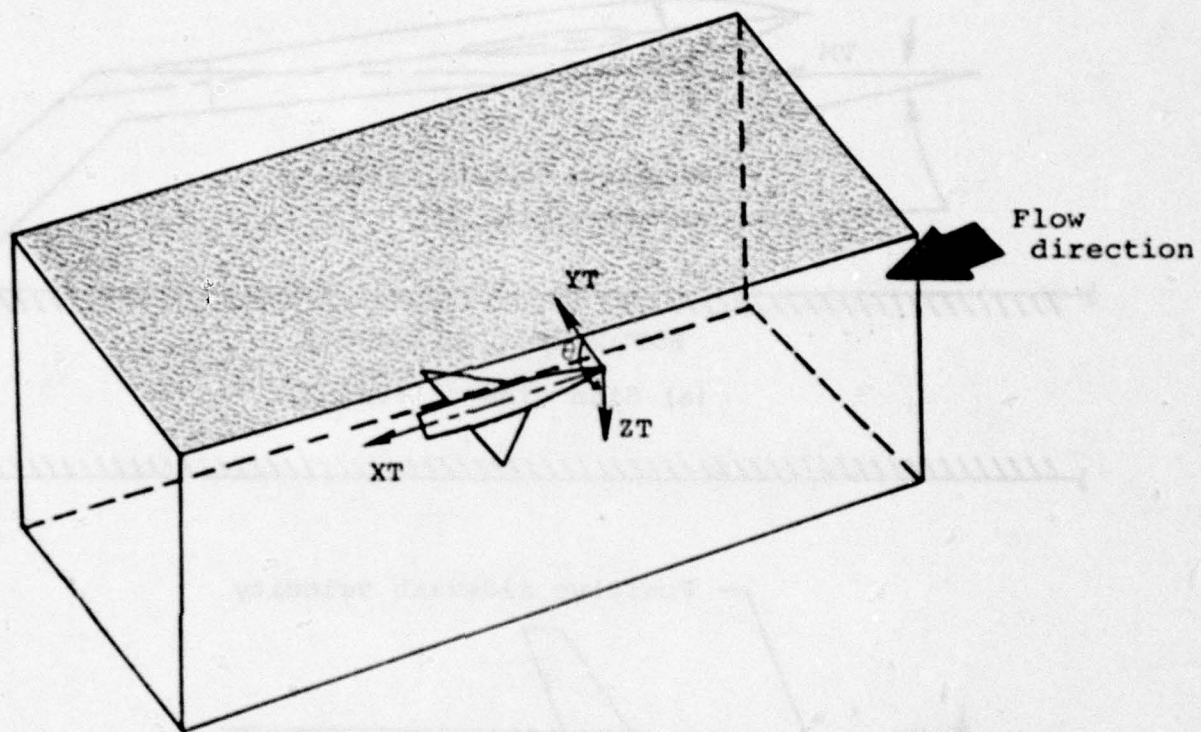
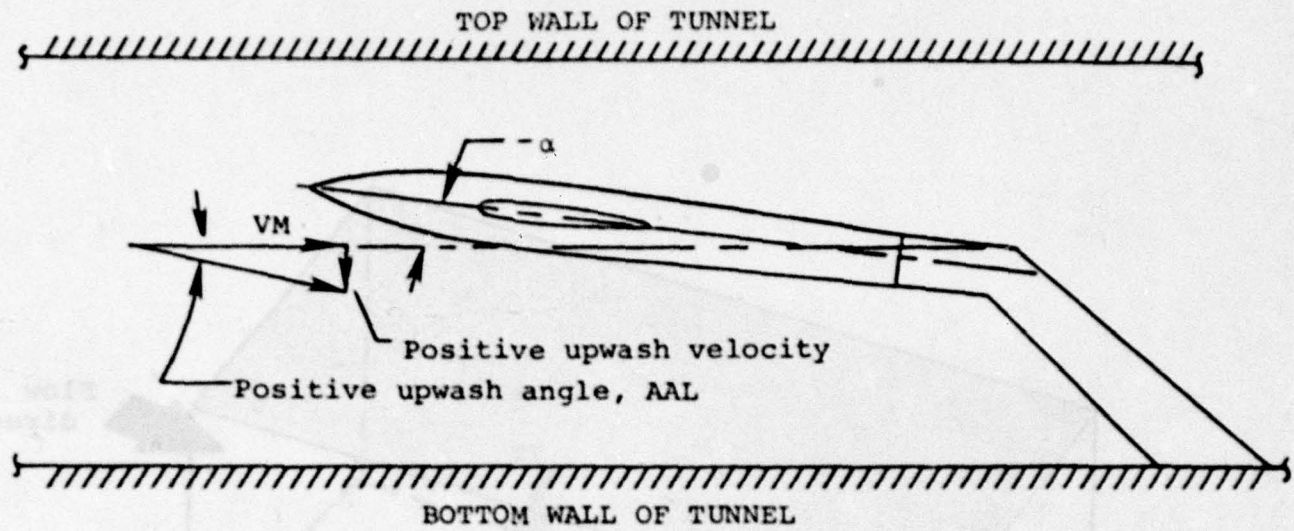
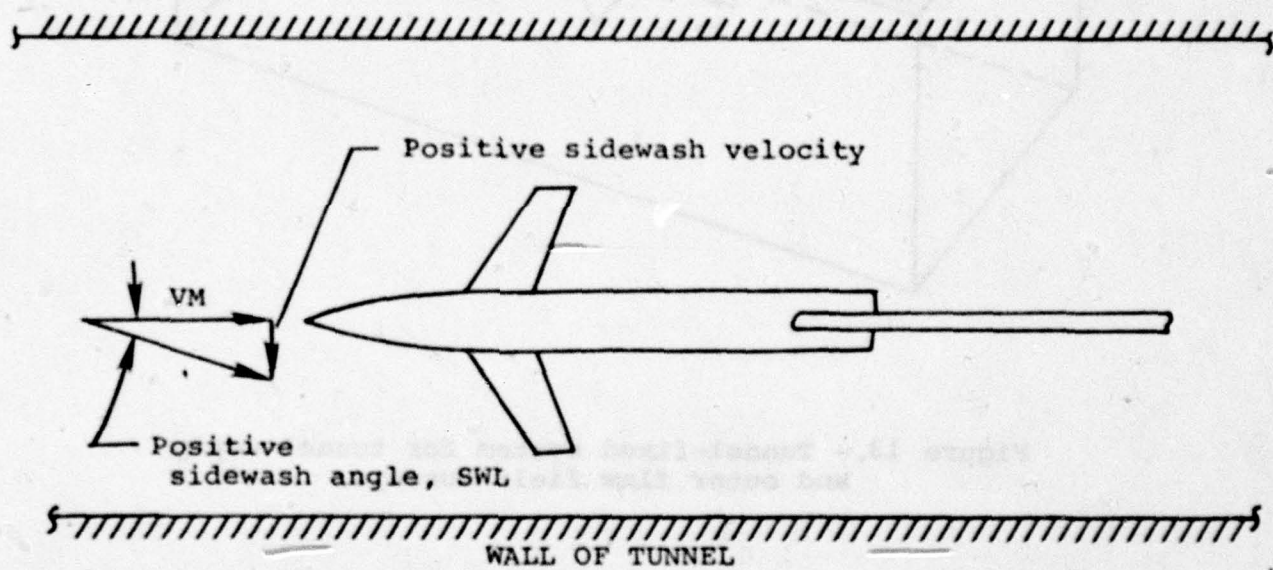


Figure 13.- Tunnel-fixed system for tunnel-empty and outer flow field surveys.



(a) Side view of tunnel.



(b) Plan view of tunnel from top.

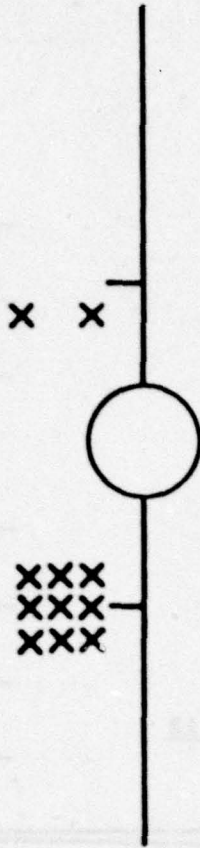
Figure 14.- Pictorial sign convention for upwash and sidewash angles.



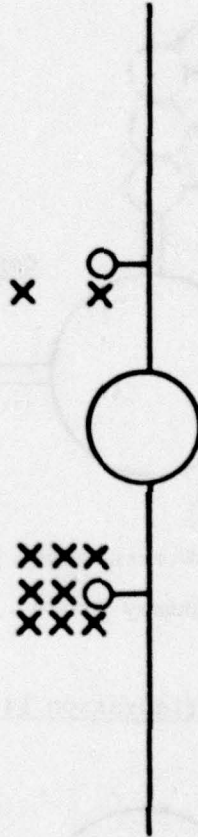
Configuration 21



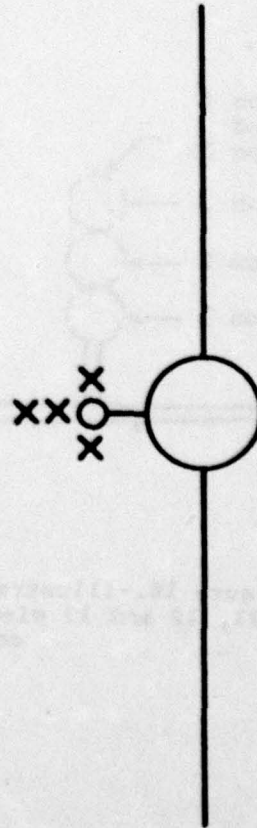
Configuration 22



Configuration 24



Configuration 25



Configuration 26

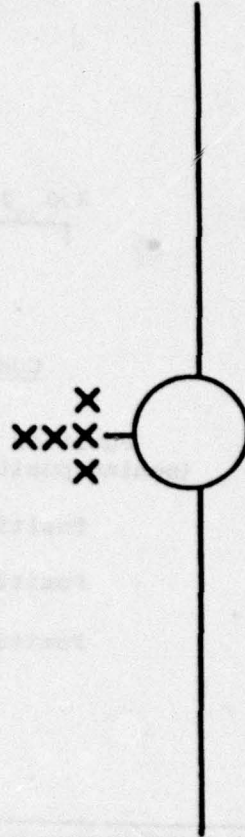


Figure 15.- Cross-sectional illustration of configurations 21, 22, 24, 25 and 26 viewed from rear of model.

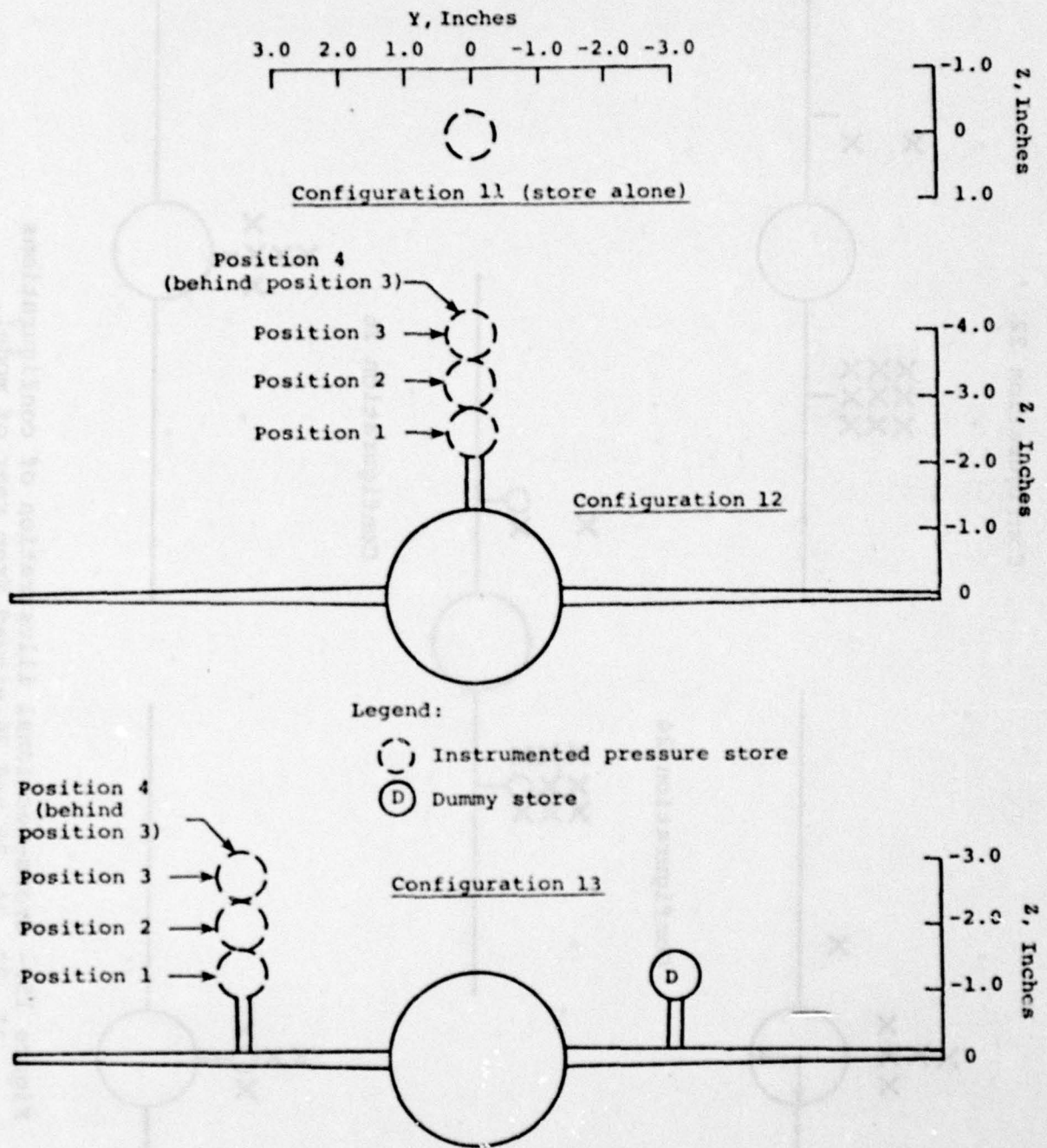


Figure 16. -Illustration of wing-body/pylon/stores configurations 11, 12 and 13 viewed from rear of model. Illustrated positions correspond to the case  $M = M4$ .



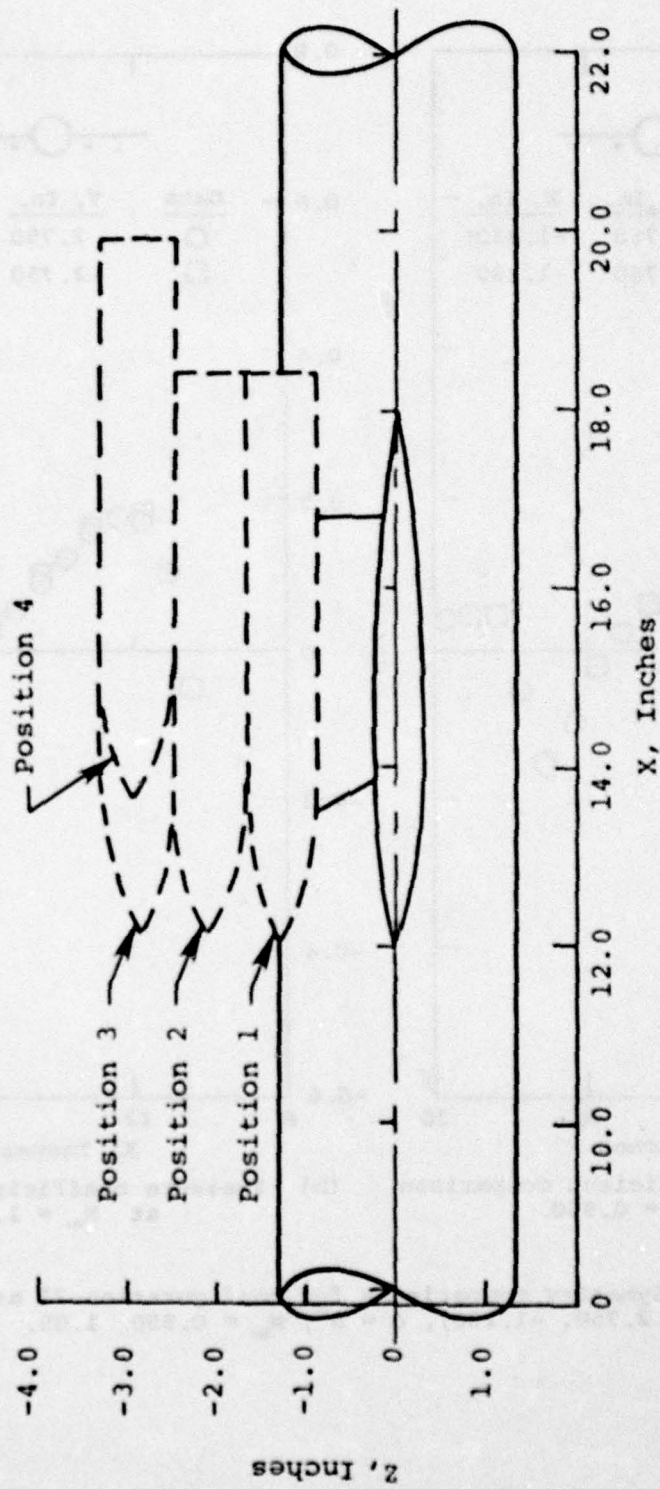


Figure 17.- Side view of four positions of instrumented pressure store for configuration 13, M = M4.

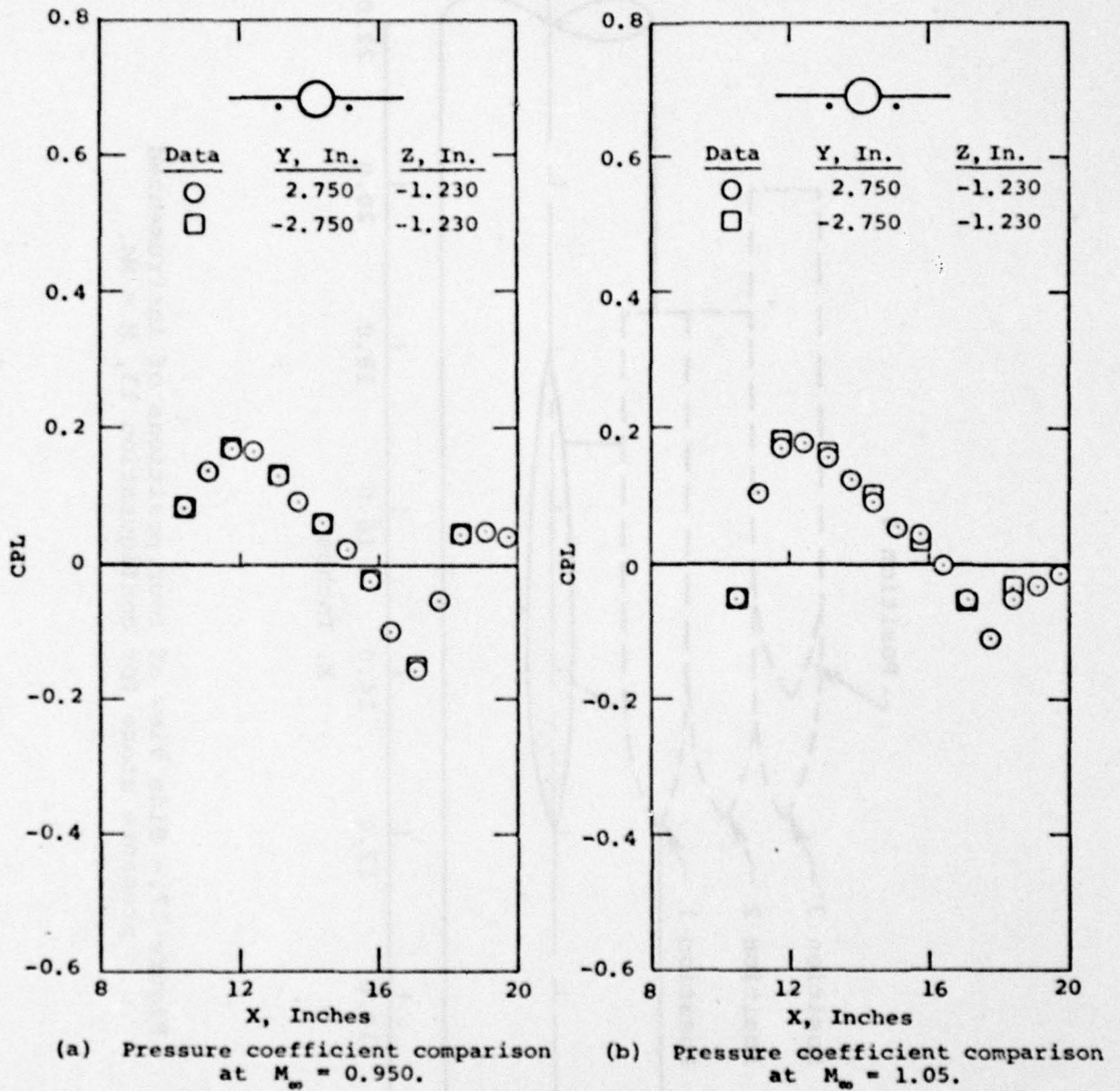
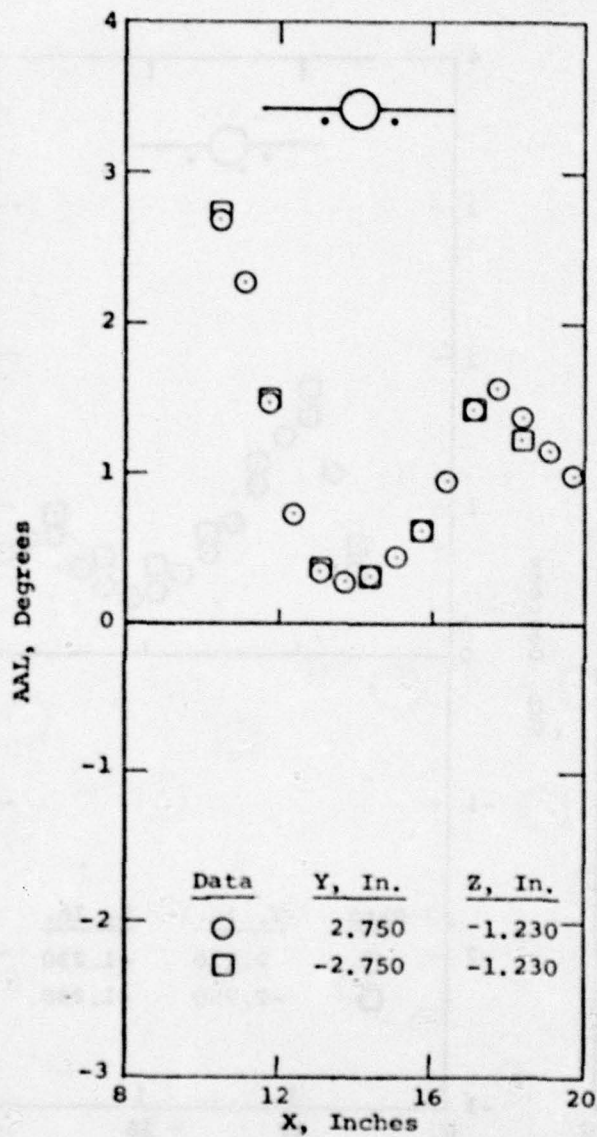
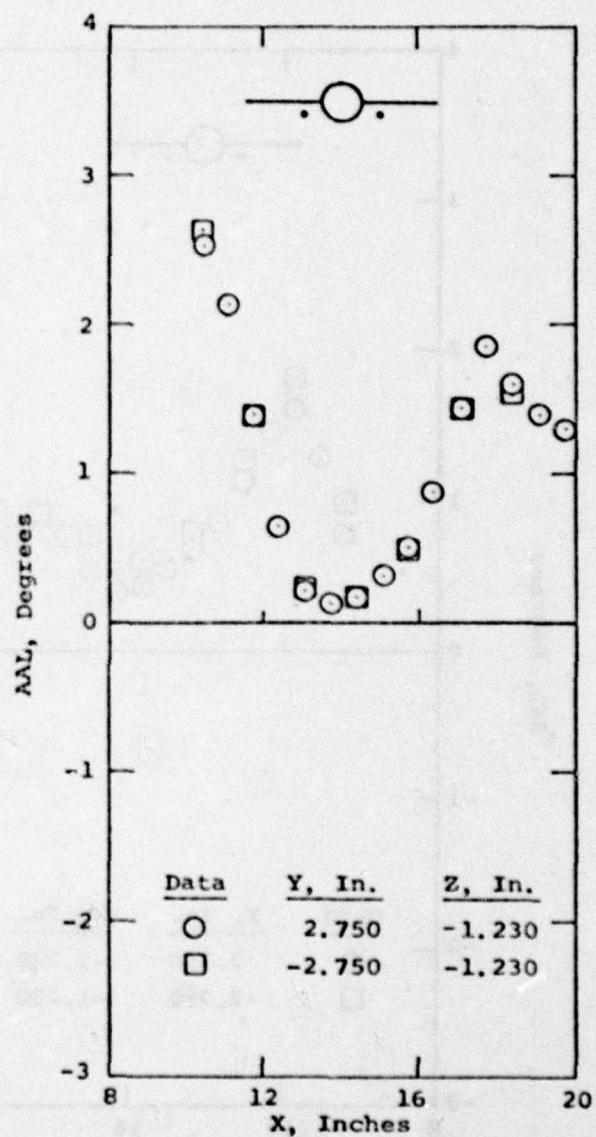


Figure 18.- Symmetry comparisons for configuration 21 at  $(Y, Z) = (\pm 2.750, -1.230)$ ,  $\alpha = 5^\circ$ ,  $M_\infty = 0.950, 1.05$ .



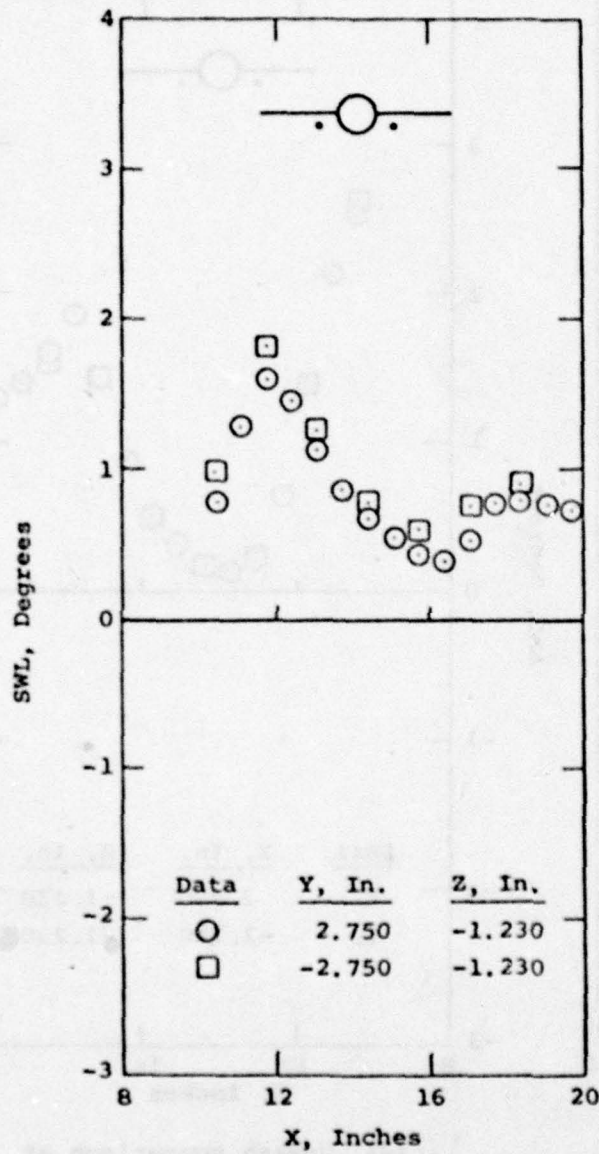


(c) Upwash comparison at  $M_\infty = 0.950$ .

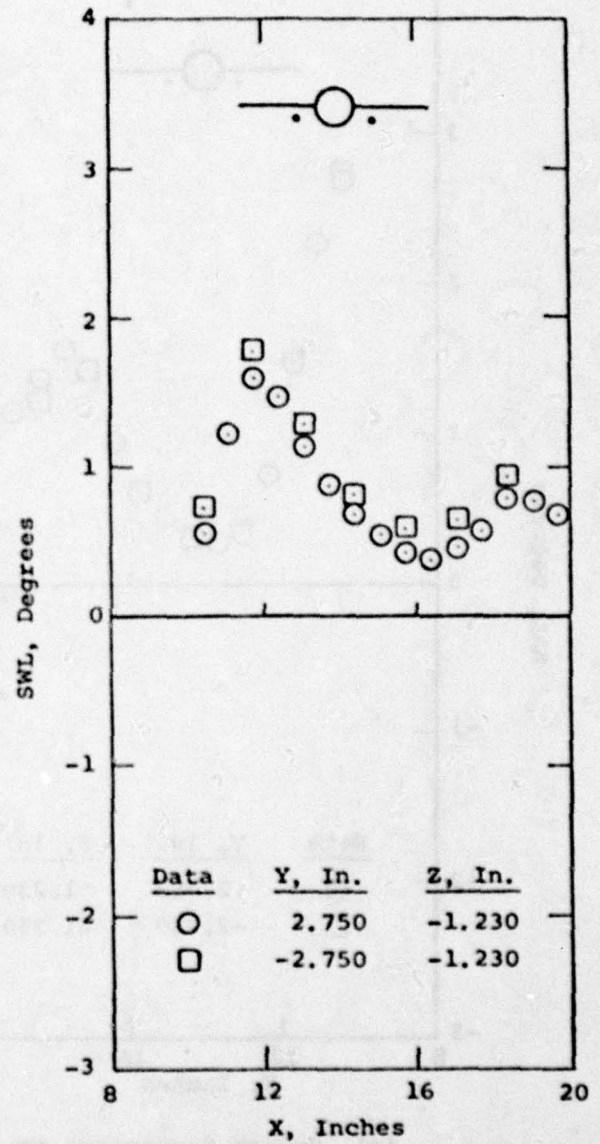


(d) Upwash comparison at  $M_\infty = 1.05$ .

Figure 18.- Continued.

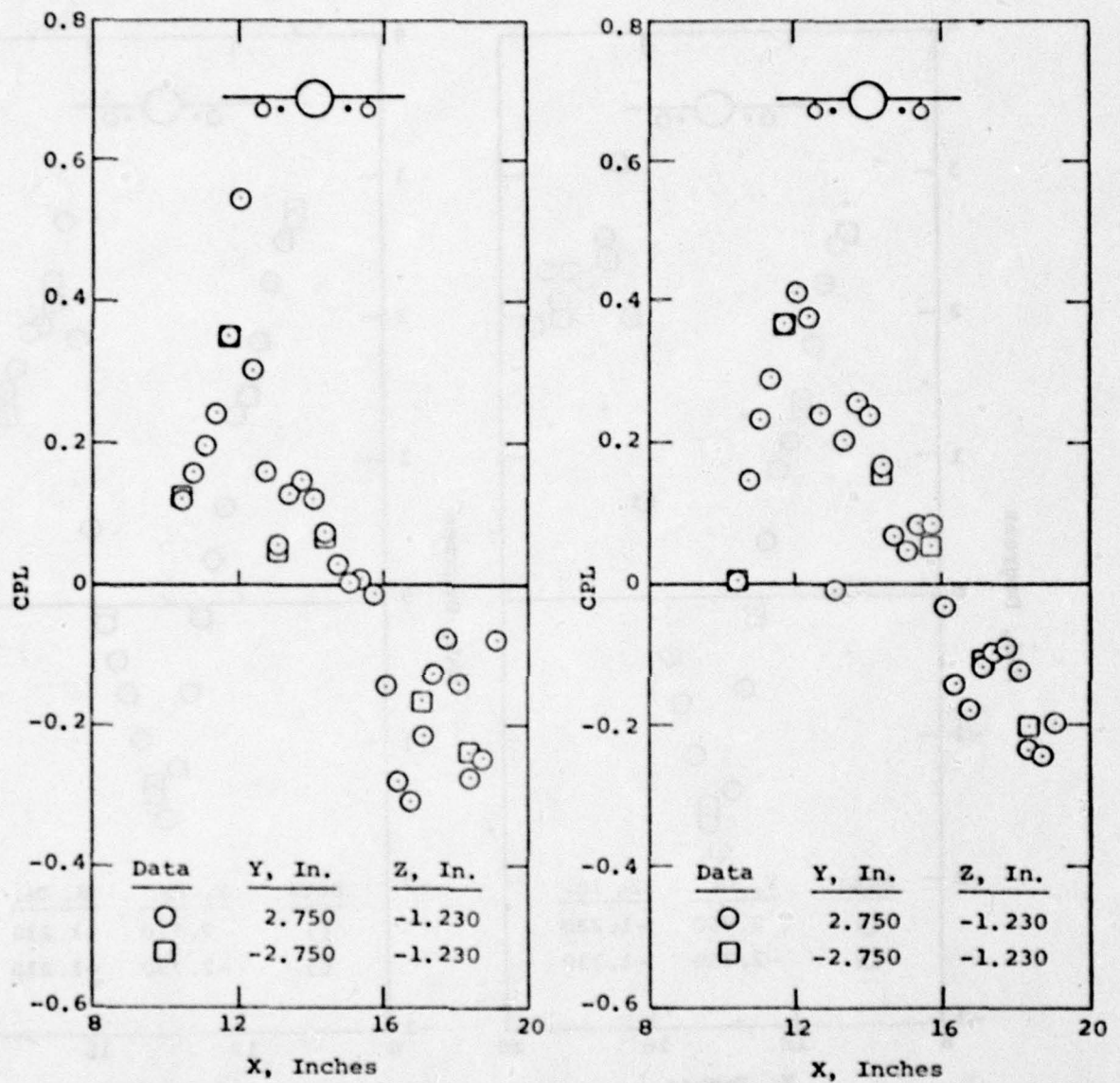


(e) Sidewash comparison at  $M_\infty = 0.950$ .



(f) Sidewash comparison at  $M_\infty = 1.05$ .

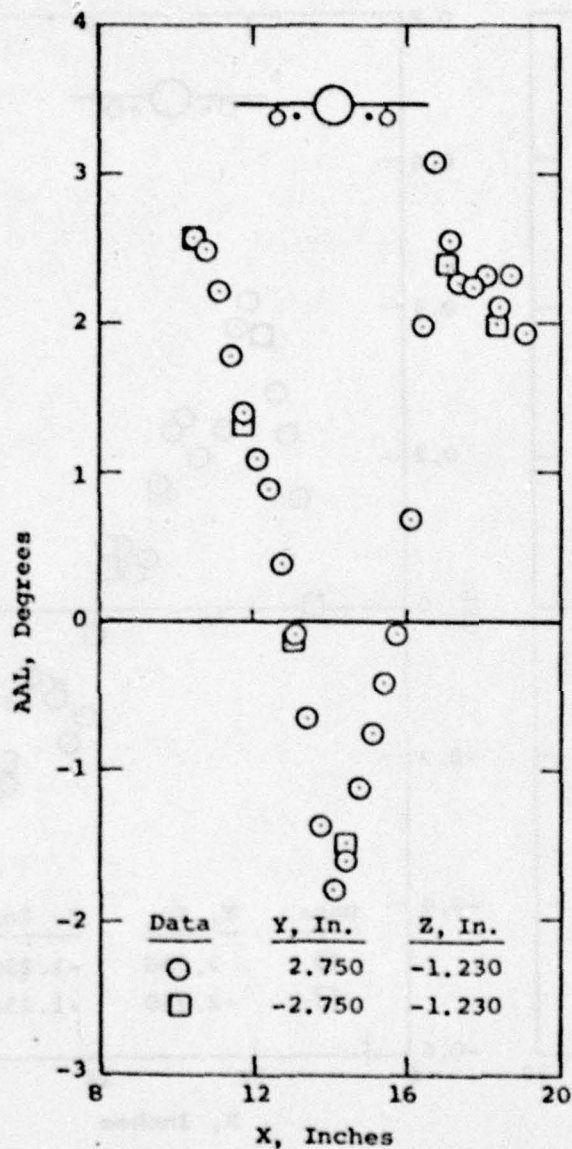
Figure 18.- Concluded.



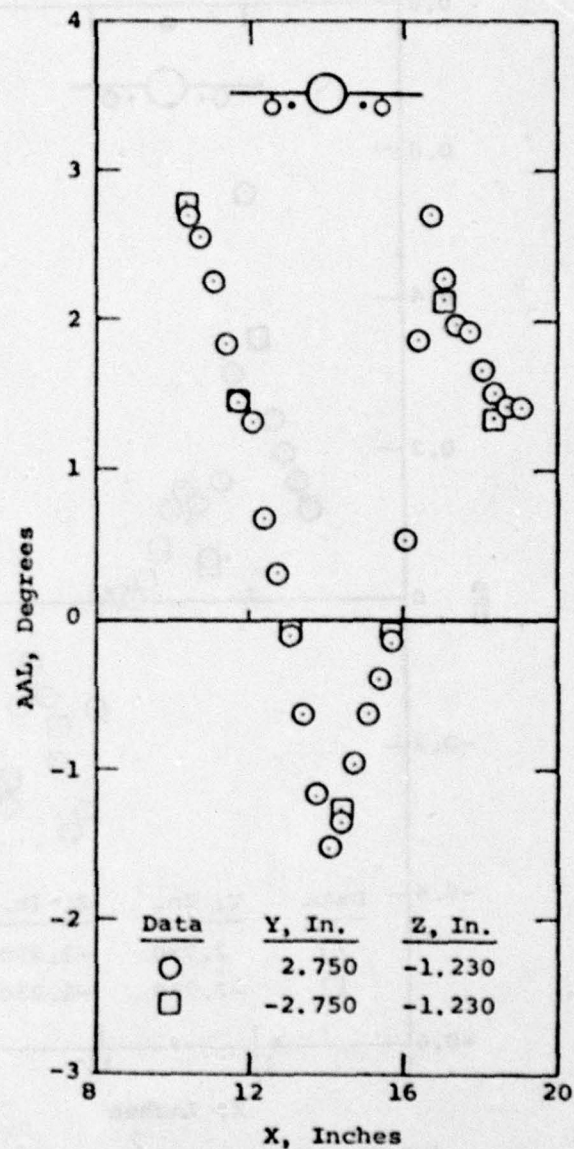
(a) Pressure coefficient comparison at  $M_\infty = 0.950$ . (b) Pressure coefficient comparison at  $M_\infty = 1.05$ .

Figure 19.- Symmetry comparisons for configuration 24 at  $(Y,Z) = (\pm 2.750, -1.230)$ ,  $\alpha = 5^\circ$ ,  $M_\infty = 0.950, 1.05$ .



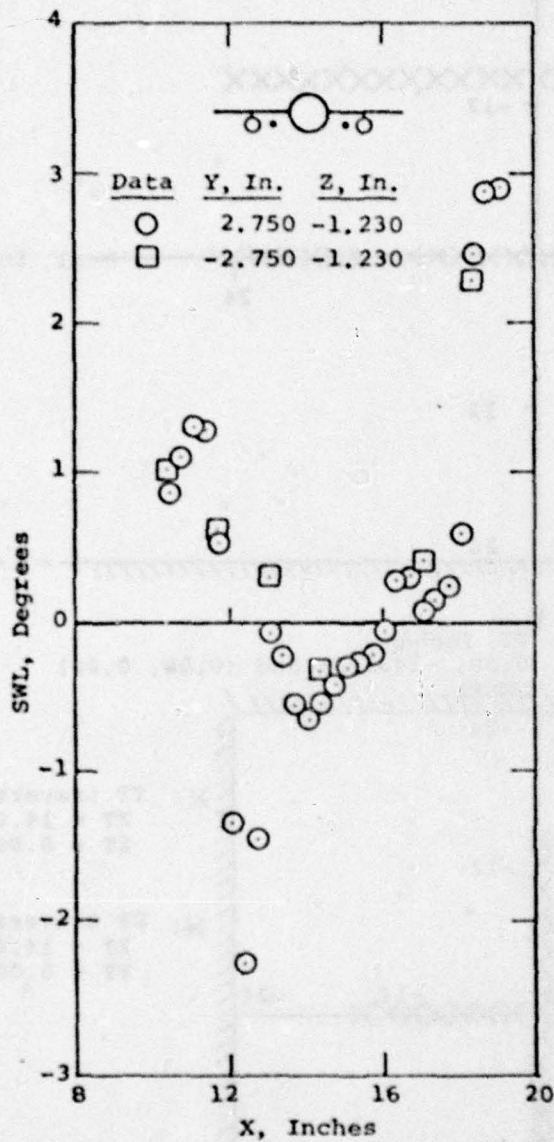


(c) Upwash comparison at  
 $M_{\infty} = 0.950$ .

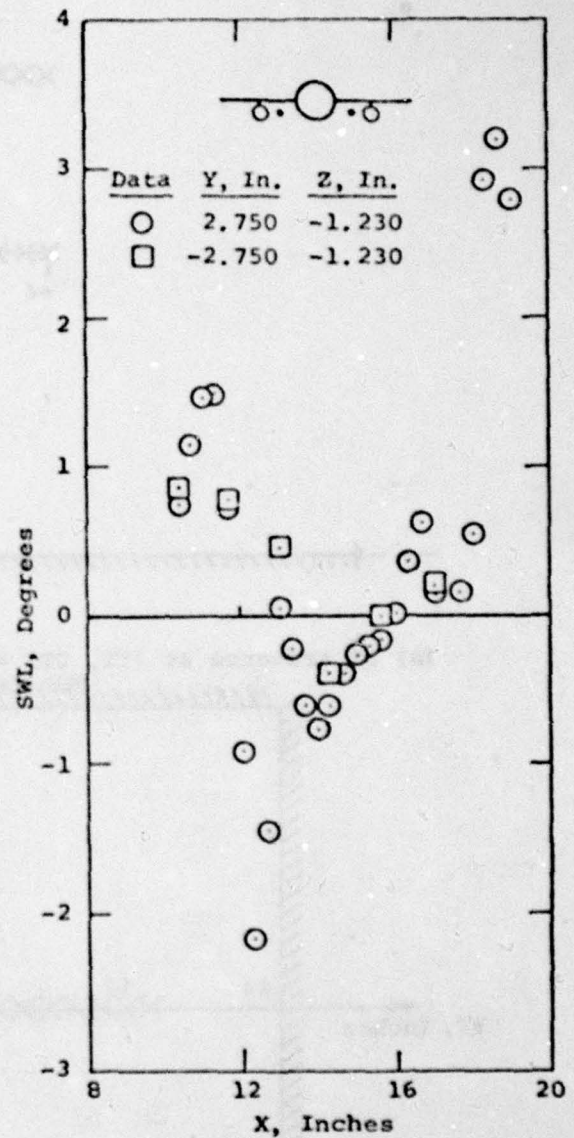


(d) Upwash comparison at  
 $M_{\infty} = 1.05$ .

Figure 19.- Continued.

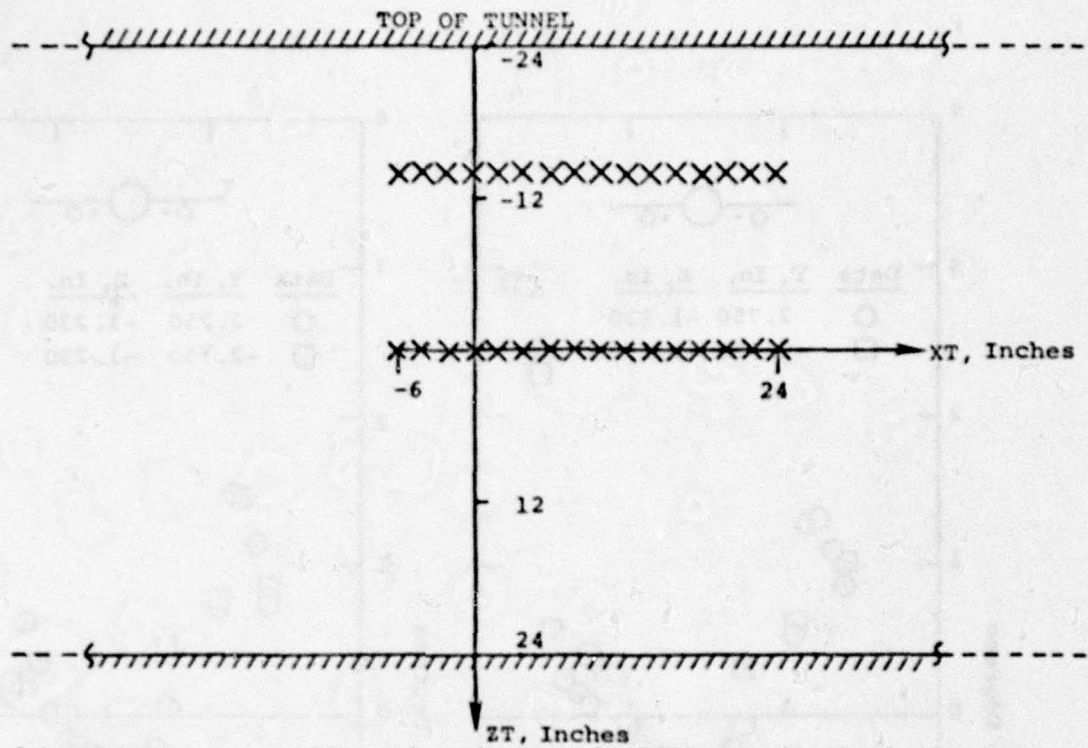


(e) Sidewash comparison at  $M_{\infty} = 0.950$ .

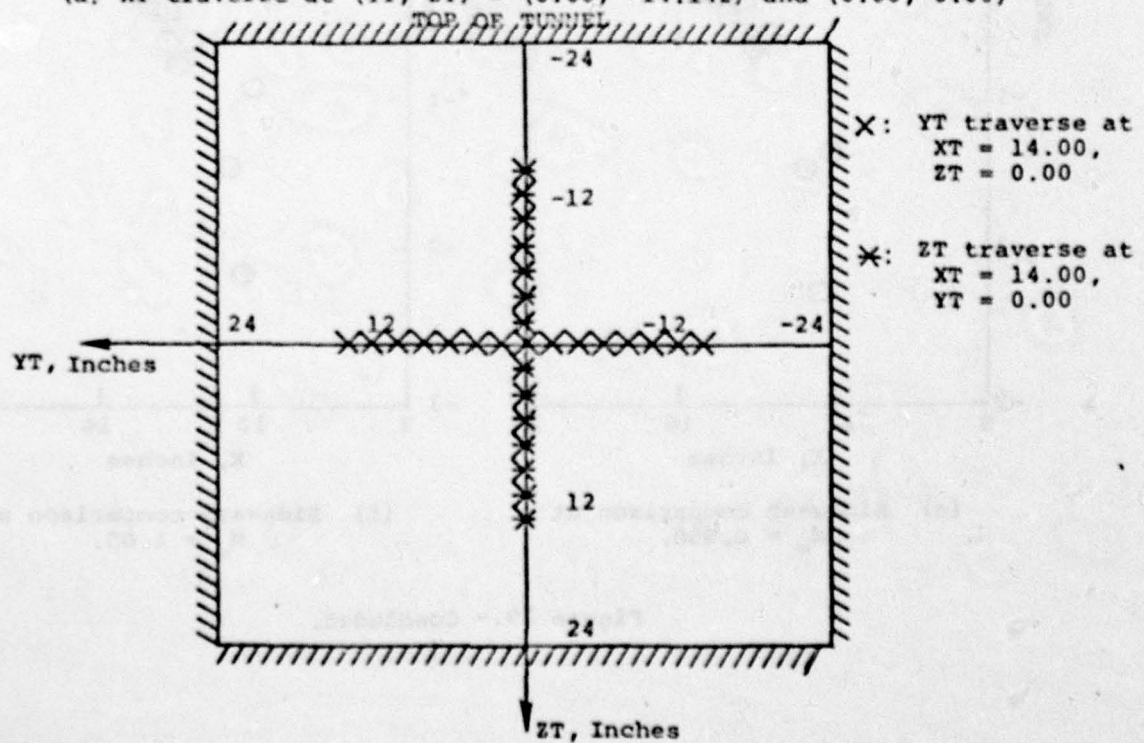


(f) Sidewash comparison at  $M_{\infty} = 1.05$ .

Figure 19.- Concluded.



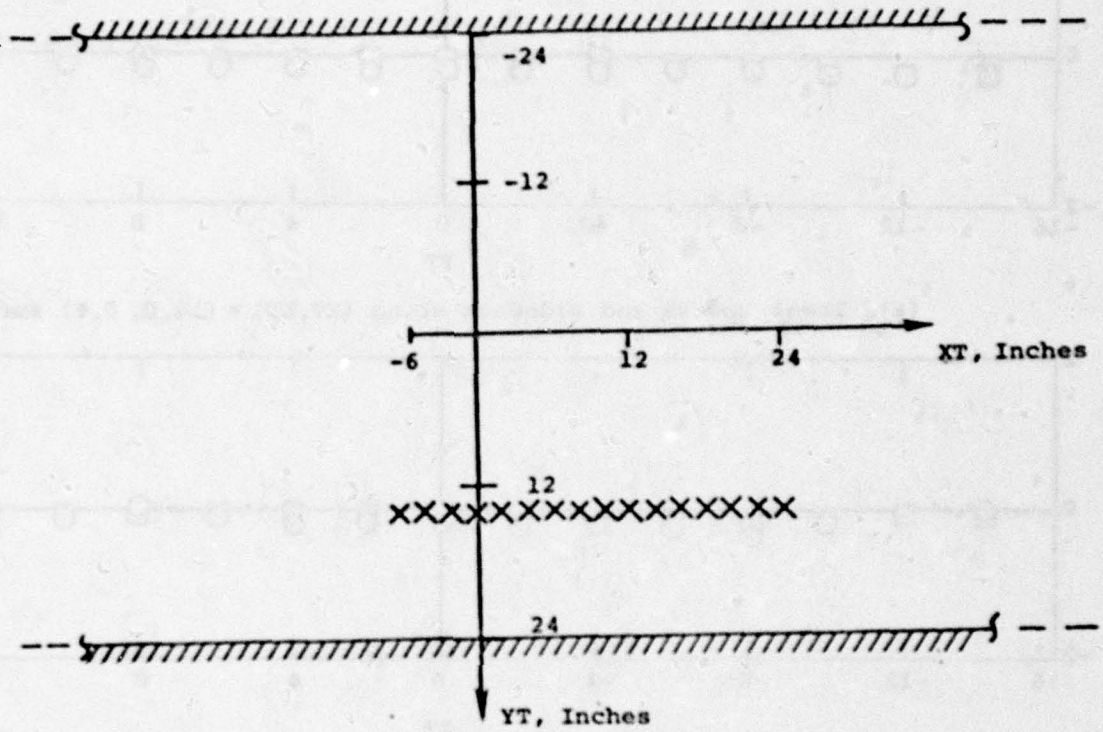
(a) XT traverse at  $(YT, ZT) = (0.00, -14.142)$  and  $(0.00, 0.00)$



(b) YT and ZT traverses.

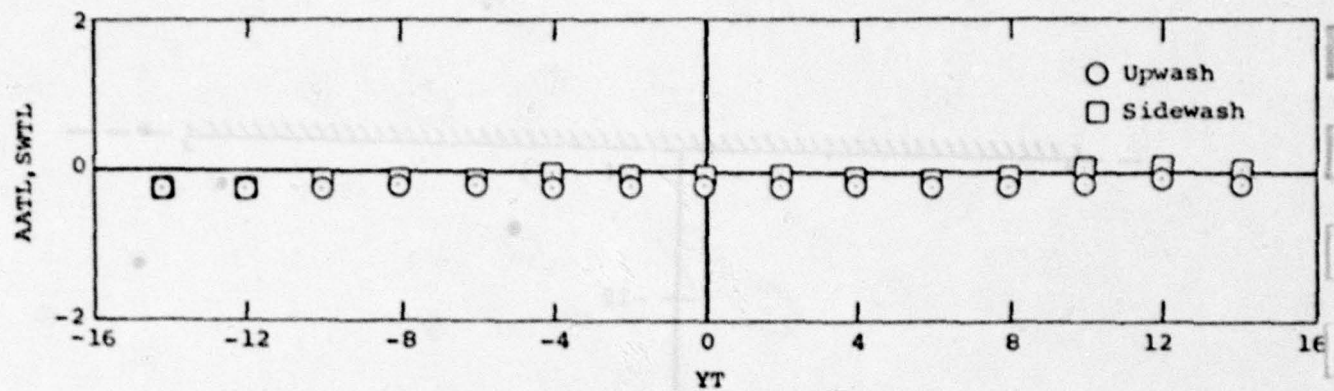
Figure 20.- Tunnel-empty survey grids.



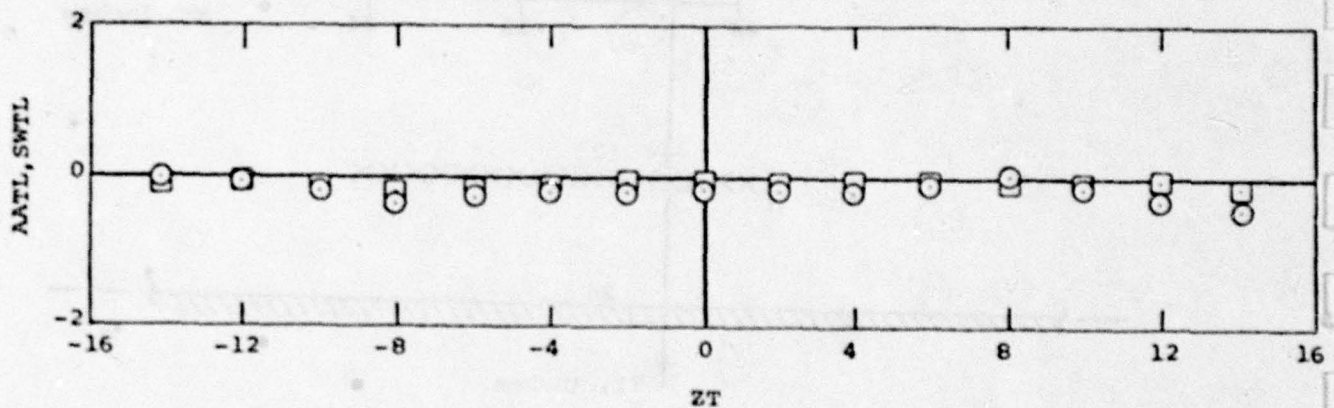


(c) XT traverse at  $(YT, ZT) = (14.142, 0.0)$

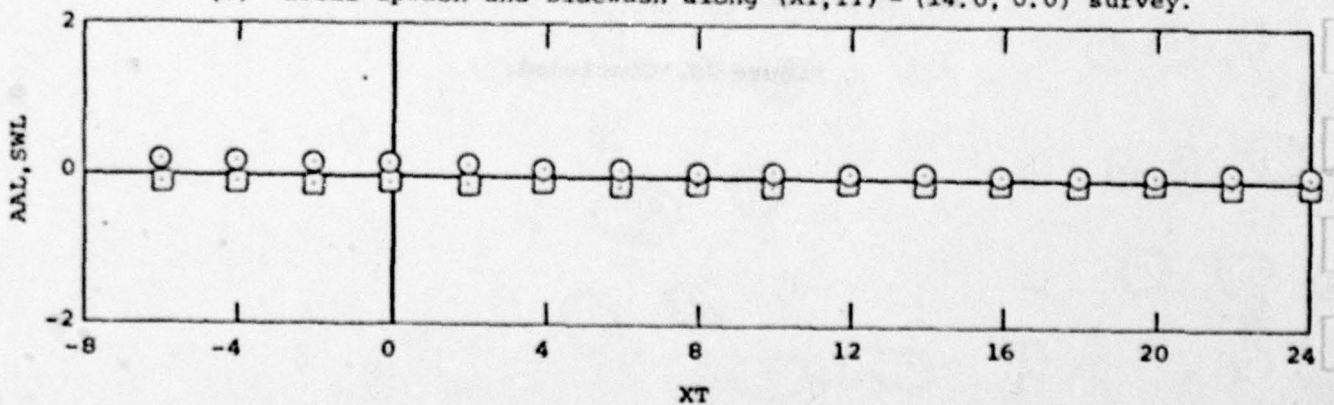
Figure 20. -Concluded.



(a) Local upwash and sidewash along  $(XT, ZT) = (14.0, 0.0)$  survey.



(b) Local upwash and sidewash along  $(XT, YT) = (14.0, 0.0)$  survey.



(c) Local upwash and sidewash along  $(YT, ZT) = (0.0, -14.142)$  survey.

Figure 21.- Local upwash and sidewash in tunnel-empty surveys,  $M_\infty = 0.95$ .

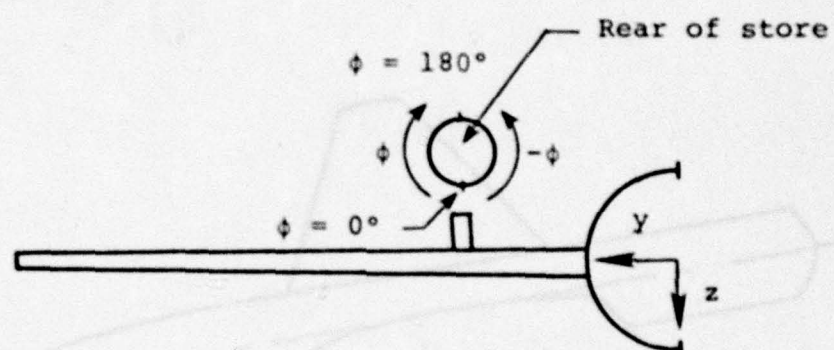


Figure 22.- Store roll angle convention.



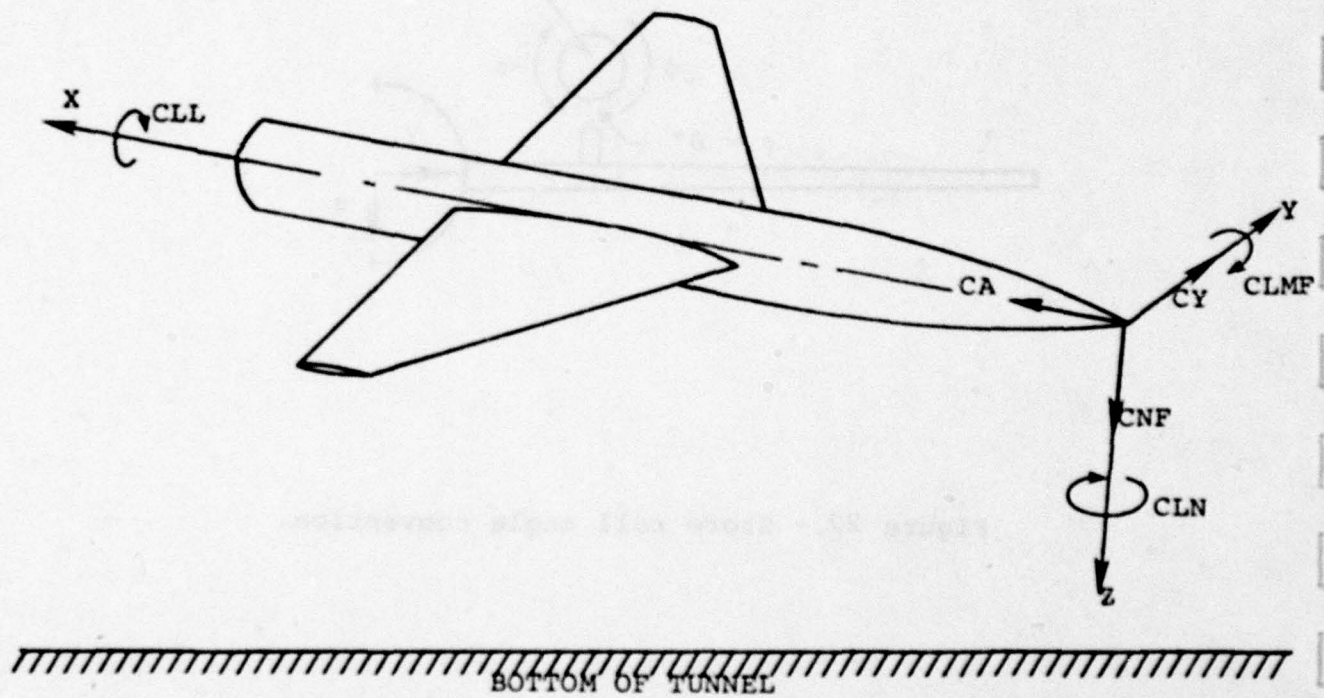


Figure 23.-Sketch of the wing-body configuration in the tunnel showing positive sense of forces and moments.

DATE 9-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMED AIR FORCE STATION, TENNESSEE

TEST PART AX10-6 ALPHA CONFIG SURVEY ALFAS

TC-532 251 3.002 0.00 20 1701 0.02

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	G	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AFL	STAT
8	-5.000	0.000-14.142	0.927	982.6	1471.3	508.1	88.2	0.934	1.007	0.998	-0.017	1.007	-0.001	0.004	0.21	-0.04	
9	-4.000	0.000-14.142	0.926	982.1	1471.4	507.8	88.3	0.934	1.007	0.999	-0.016	1.007	-0.001	0.004	0.20	-0.04	
11	-2.000	0.000-14.142	0.921	977.1	1471.0	504.7	88.2	0.930	1.009	0.999	-0.020	1.009	-0.001	0.003	0.18	-0.04	
12	0.000	0.000-14.142	0.921	977.3	1469.1	504.2	88.2	0.930	1.008	0.999	-0.017	1.008	-0.001	0.003	0.16	-0.03	
13	2.000	0.000-14.142	0.925	980.9	1471.0	506.9	88.3	0.937	1.011	0.999	-0.025	1.011	-0.001	0.003	0.15	-0.04	
18	4.000	0.000-14.142	0.926	981.3	1471.5	507.4	88.2	0.934	1.007	0.998	-0.018	1.007	-0.001	0.002	0.13	-0.04	
20	6.000	0.000-14.142	0.921	977.3	1474.0	505.9	88.1	0.932	1.010	0.997	-0.025	1.010	-0.001	0.001	0.06	-0.07	
21	8.000	0.000-14.142	0.925	980.5	1471.8	507.1	88.1	0.936	1.010	0.998	-0.023	1.010	-0.001	0.001	0.08	-0.06	
23	10.000	0.000-14.142	0.923	978.6	1470.6	505.4	88.3	0.931	1.008	0.999	-0.019	1.008	-0.001	0.000	0.02	-0.04	
26	12.000	0.000-14.142	0.924	979.8	1472.3	506.7	88.3	0.934	1.009	0.999	-0.020	1.009	-0.001	0.000	0.01	-0.04	
28	14.000	0.000-14.142	0.927	982.6	1470.0	507.6	88.3	0.934	1.007	1.000	-0.013	1.007	-0.001	0.001	0.05	-0.05	
32	16.000	0.000-14.142	0.921	977.8	1472.2	505.4	88.5	0.924	1.003	0.999	-0.008	1.003	-0.000	0.001	0.04	-0.01	
34	18.000	0.000-14.142	0.923	979.3	1472.1	506.2	88.6	0.929	1.006	0.999	-0.013	1.006	-0.001	0.001	0.06	-0.05	
38	20.000	0.000-14.142	0.928	984.1	1472.2	509.0	88.8	0.934	1.006	0.999	-0.014	1.006	-0.001	0.001	0.05	-0.05	
40	22.000	0.000-14.142	0.926	982.5	1474.1	508.6	88.9	0.932	1.005	0.998	-0.014	1.005	-0.001	0.001	0.08	-0.05	
44	24.000	0.000-14.142	0.926	982.6	1473.2	508.4	88.9	0.933	1.006	0.999	-0.014	1.006	-0.001	0.002	0.10	-0.07	



DATE 9-MAR-78 PROJECT NO P41C-W0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MEX10-6 ALPHA CONFIG SURVEY ALPAs

TC-532 252 1.001 0.00 20 1702 0.02

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
5	-6.000	0.000	0.000	0.925	980.8	1473.2	507.5	88.5	0.928	1.003	0.998	-0.009	1.003	-0.000	-0.002	-0.09	-0.02
6	-4.000	0.000	0.000	0.929	984.6	1473.3	509.7	88.6	0.937	1.007	0.998	-0.017	1.007	-0.000	-0.002	-0.11	-0.02
7	-2.000	0.000	0.000	0.927	982.8	1471.6	508.1	88.6	0.934	1.006	0.999	-0.015	1.006	-0.000	-0.002	-0.11	-0.01
8	0.000	0.000	0.000	0.924	981.8	1472.9	508.0	88.6	0.933	1.007	0.998	-0.017	1.007	-0.000	-0.002	-0.13	-0.00
9	2.000	0.000	0.000	0.925	981.5	1472.0	507.5	88.6	0.933	1.007	0.998	-0.016	1.007	-0.000	-0.002	-0.12	-0.01
12	4.000	0.000	0.000	0.924	980.4	1472.0	506.8	88.6	0.934	1.009	0.999	-0.019	1.009	-0.000	-0.003	-0.16	-0.01
13	6.000	0.000	0.000	0.927	982.6	1472.7	508.3	88.6	0.934	1.007	0.999	-0.017	1.007	-0.000	-0.003	-0.15	-0.02
14	8.000	0.000	0.000	0.921	977.7	1473.0	505.5	88.6	0.930	1.008	0.999	-0.019	1.008	-0.001	-0.003	-0.19	-0.03
15	10.000	0.000	0.000	0.926	985.1	1473.4	510.1	88.6	0.938	1.008	0.999	-0.018	1.008	-0.001	-0.003	-0.18	-0.04
16	12.000	0.000	0.000	0.923	979.5	1469.4	505.4	88.6	0.935	1.011	1.000	-0.032	1.011	-0.001	-0.003	-0.19	-0.05
19	14.000	0.000	0.000	0.929	984.7	1474.3	510.1	88.7	0.937	1.008	0.998	-0.019	1.008	-0.001	-0.003	-0.19	-0.05
20	16.000	0.000	0.000	0.920	977.2	1473.9	505.4	88.9	0.928	1.007	0.998	-0.016	1.007	-0.001	-0.004	-0.20	-0.05
25	18.000	0.000	0.000	0.929	985.3	1475.6	510.7	89.1	0.935	1.006	0.998	-0.014	1.006	-0.001	-0.003	-0.16	-0.06
27	20.000	0.000	0.000	0.924	982.0	1474.2	508.3	89.0	0.933	1.006	0.999	-0.015	1.006	-0.001	-0.003	-0.18	-0.08
30	22.000	0.000	0.000	0.925	981.8	1474.9	508.3	89.3	0.934	1.008	0.998	-0.019	1.008	-0.002	-0.003	-0.17	-0.10
33	24.000	0.000	0.000	0.928	984.8	1475.7	510.2	89.5	0.939	1.010	0.999	-0.021	1.010	-0.001	-0.003	-0.18	-0.08



DATE 9-MAR-78 PROJECT NO P41C-N0C

AND, INC.

AEDC DIVISION

A SVESORUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARACOLD AIR FORCE STATION, TENNESSEE

TEST PART PEX10-6 ALPHA CONFIG

TC-532 253 3.002 0.00 20 1703 0.02

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
3	-6.000	14.142	0.000	0.929	984.4	1472.9	509.4	88.8	0.932	1.003	0.999	-0.007	1.003	0.002	-0.000	-0.01	0.12
4	-4.000	14.142	0.000	0.929	984.7	1472.1	509.3	88.7	0.934	1.005	0.999	-0.011	1.005	0.002	-0.001	-0.04	0.09
5	-2.000	14.142	0.000	0.925	981.2	1470.8	508.8	88.7	0.933	1.007	1.000	-0.015	1.007	0.002	-0.001	-0.05	0.09
6	0.000	14.142	0.000	0.928	983.5	1472.8	508.9	88.7	0.936	1.007	0.999	-0.017	1.007	0.002	-0.001	-0.07	0.10
7	2.000	14.142	0.000	0.927	982.6	1471.5	507.9	88.6	0.934	1.006	0.999	-0.015	1.006	0.002	-0.001	-0.07	0.10
8	4.000	14.142	0.000	0.925	981.6	1472.5	507.6	88.7	0.933	1.007	0.999	-0.016	1.007	0.002	-0.002	-0.09	0.11
9	6.000	14.142	0.000	0.926	981.9	1471.8	507.5	88.7	0.936	1.009	1.000	-0.019	1.009	0.002	-0.002	-0.09	0.13
10	8.000	14.142	0.000	0.927	983.1	1474.0	509.0	88.7	0.933	1.006	0.998	-0.015	1.006	0.002	-0.002	-0.13	0.11
11	10.000	14.142	0.000	0.929	984.7	1473.8	509.9	88.7	0.937	1.007	0.998	-0.017	1.007	0.002	-0.002	-0.12	0.09
14	12.000	14.142	0.000	0.921	977.4	1471.5	504.9	88.6	0.929	1.007	1.000	-0.016	1.007	0.002	-0.003	-0.16	0.08
17	14.000	14.142	0.000	0.927	983.0	1474.6	509.2	88.8	0.934	1.007	0.998	-0.016	1.007	0.002	-0.003	-0.16	0.08
20	16.000	14.142	0.000	0.926	982.4	1472.5	508.1	88.8	0.928	1.002	0.999	-0.005	1.002	0.001	-0.003	-0.16	0.08
22	18.000	14.142	0.000	0.924	984.5	1473.4	509.4	89.1	0.935	1.006	1.000	-0.012	1.006	0.001	-0.003	-0.16	0.05
25	20.000	14.142	0.000	0.923	980.0	1475.3	507.4	89.1	0.930	1.006	0.998	-0.015	1.006	0.001	-0.003	-0.18	0.05
30	22.000	14.142	0.000	0.924	981.0	1473.3	507.2	89.3	0.933	1.008	0.999	-0.017	1.008	0.001	-0.003	-0.16	0.04
32	24.000	14.142	0.000	0.927	983.1	1473.6	508.6	89.3	0.935	1.007	0.999	-0.015	1.007	0.001	-0.003	-0.18	0.05

DATE 9-MAR-78 PROJECT NO P41C-NOC

AMO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

AMHOLD AIR FORCE STATION, TENNESSEE

TEST PART HELIX-6 ALPHA CONFIG

254 3.001 0.00 20

SURVEY ALphas

1784 0.02

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	IT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
11	14.000	14.142	0.000	0.923	979.9	1475.8	507.6	89.0	0.928	1.004	0.997	-0.013	1.004	0.002	-0.003	-0.16	0.09
12	14.000	12.000	0.000	0.924	980.2	1473.0	506.8	89.0	0.930	1.006	0.999	-0.013	1.006	0.002	-0.001	-0.08	0.12
13	14.000	10.000	0.000	0.926	982.5	1472.4	508.0	89.0	0.931	1.004	0.999	-0.010	1.004	0.001	-0.002	-0.14	0.05
15	14.000	8.000	0.000	0.927	983.6	1474.2	509.2	89.1	0.935	1.007	0.999	-0.016	1.007	-0.000	-0.003	-0.19	-0.03
16	14.000	6.000	0.000	0.929	985.5	1475.0	510.5	89.2	0.936	1.006	0.998	-0.015	1.006	-0.001	-0.003	-0.17	-0.04
17	14.000	4.000	0.000	0.922	978.8	1474.4	506.2	89.1	0.927	1.005	0.998	-0.012	1.005	-0.001	-0.003	-0.17	-0.05
18	14.000	2.000	0.000	0.927	983.7	1474.3	509.3	89.1	0.937	1.009	0.999	-0.019	1.009	-0.001	-0.004	-0.21	-0.05
19	14.000	0.000	0.000	0.920	977.3	1472.5	504.8	89.1	0.927	1.006	0.999	-0.013	1.006	-0.001	-0.003	-0.18	-0.07
20	14.000	-2.000	0.000	0.922	978.8	1473.9	506.3	89.1	0.928	1.006	0.999	-0.013	1.006	-0.001	-0.004	-0.21	-0.04
24	14.000	-4.000	0.000	0.926	982.4	1473.7	508.3	89.2	0.931	1.005	0.999	-0.011	1.005	-0.001	-0.003	-0.19	-0.04
25	14.000	-6.000	0.000	0.922	978.5	1474.5	506.2	89.2	0.930	1.008	0.999	-0.017	1.008	-0.001	-0.004	-0.21	-0.06
26	14.000	-8.000	0.000	0.929	985.7	1477.2	511.4	89.3	0.936	1.006	0.998	-0.016	1.006	-0.001	-0.003	-0.18	-0.05
28	14.000	-10.000	0.000	0.929	985.2	1474.7	510.3	89.2	0.939	1.010	1.000	-0.020	1.010	-0.002	-0.004	-0.23	-0.10
29	14.000	-12.000	0.000	0.920	977.4	1475.5	506.0	89.1	0.929	1.008	0.998	-0.018	1.008	-0.003	-0.004	-0.24	-0.18
32	14.000	-14.142	0.000	0.929	985.0	1474.1	509.9	89.2	0.936	1.007	0.999	-0.016	1.007	-0.003	-0.003	-0.19	-0.19



DATE 9-MAR-74 PROJECT NO P41C-WDC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART HX10-6 ALPHA CONFIG

TC-512 255 2.934 0.00 20 1705 0.01

DATE 2-17-76  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
2	14.000	0.000	14.142	0.925	981.9	1472.3	507.6	89.3	0.931	1.006	0.999	-0.013	1.006	-0.001	-0.006	-0.35	-0.08
3	14.000	0.000	12.000	0.921	978.1	1472.5	505.2	89.3	0.928	1.007	0.999	-0.015	1.007	-0.000	-0.005	-0.28	-0.00
5	14.000	0.000	10.000	0.923	979.6	1475.4	507.1	89.3	0.929	1.006	0.998	-0.015	1.006	-0.001	-0.002	-0.59	-0.06
6	14.000	0.000	8.000	0.930	945.8	1477.3	511.4	89.3	0.936	1.006	0.998	-0.016	1.006	-0.001	0.000	0.01	-0.03
7	14.000	0.000	6.000	0.927	983.3	1476.3	509.6	89.3	0.934	1.007	0.998	-0.016	1.007	-0.001	-0.002	-0.11	-0.06
8	14.000	0.000	4.000	0.923	980.1	1474.4	507.0	89.4	0.929	1.006	0.999	-0.013	1.006	-0.001	-0.003	-0.16	-0.04
9	14.000	0.000	2.000	0.924	981.1	1476.4	508.4	89.3	0.931	1.006	0.999	-0.014	1.006	-0.001	-0.003	-0.17	-0.04
10	14.000	0.000	0.000	0.926	982.3	1474.4	508.4	89.3	0.930	1.004	0.999	-0.009	1.004	-0.001	-0.003	-0.14	-0.04
11	14.000	0.000	-2.000	0.927	983.5	1476.8	509.9	89.3	0.934	1.006	0.998	-0.016	1.006	-0.001	-0.003	-0.18	-0.06
12	14.000	0.000	-4.000	0.927	983.4	1473.0	508.5	89.4	0.934	1.007	1.000	-0.014	1.007	-0.001	-0.003	-0.16	-0.06
13	14.000	0.000	-6.000	0.926	982.8	1474.5	508.7	89.4	0.933	1.007	0.999	-0.014	1.007	-0.002	-0.004	-0.20	-0.10
14	14.000	0.000	-8.000	0.929	984.9	1474.4	509.9	89.3	0.935	1.006	0.999	-0.015	1.006	-0.002	-0.005	-0.10	-0.12
15	14.000	0.000	-10.000	0.926	982.8	1475.5	509.0	89.4	0.934	1.008	0.998	-0.018	1.008	-0.001	-0.003	-0.16	-0.04
16	14.000	0.000	-12.000	0.927	983.8	1476.0	509.8	89.4	0.933	1.005	0.998	-0.014	1.005	-0.000	-0.000	-0.31	0.01
17	14.000	0.000	-14.142	0.924	980.9	1474.5	507.6	89.3	0.929	1.004	0.999	-0.011	1.004	-0.001	0.001	0.04	-0.03



DATE 9-MAR-79 PROJECT NO PAIC-WOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART REXIO-6 ALPHA CONFIG SURVEY ALFAS

TC-532 257 2.996 0.00 20 1701 0.02

DATE 2-17-78  
AEC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VH	PT	Q	TT	ML	VHL/VH	PTL/PT	CPL	UT/VH	VT/VH	WT/VH	AATL	SWTL
10	-6.000	0.000-14.142	0.949	1002.6	1459.1	515.0	88.8	88.8	0.960	1.010	0.999	-0.020	1.010	-0.001	0.004	0.25	-0.05
11	-6.000	0.000-14.142	0.951	1004.7	1461.5	517.1	88.8	88.8	0.965	1.013	0.998	-0.027	1.013	-0.001	0.004	0.21	-0.03
14	-2.000	0.000-14.142	0.954	1007.3	1458.9	517.6	88.7	88.7	0.970	1.014	0.999	-0.029	1.014	-0.001	0.004	0.22	-0.06
16	0.000	0.000-14.142	0.947	1001.1	1460.3	514.7	88.7	88.7	0.958	1.009	0.998	-0.022	1.009	-0.001	0.003	0.19	-0.05
17	2.000	0.000-14.142	0.948	1001.8	1457.9	514.3	88.6	88.6	0.961	1.012	0.999	-0.025	1.012	-0.001	0.003	0.18	-0.08
19	6.000	0.000-14.142	0.951	1004.7	1458.6	516.1	88.6	88.6	0.966	1.013	0.999	-0.029	1.013	-0.001	0.002	0.12	-0.07
20	6.000	0.000-14.142	0.951	1004.1	1458.5	515.8	88.6	88.6	0.967	1.014	0.999	-0.030	1.014	-0.001	0.002	0.11	-0.08
22	8.000	0.000-14.142	0.955	1007.5	1458.1	517.6	88.5	88.5	0.971	1.015	0.999	-0.031	1.015	-0.002	0.001	0.08	-0.09
23	10.000	0.000-14.142	0.950	1003.8	1456.6	515.0	88.5	88.5	0.970	1.017	1.000	-0.034	1.017	-0.001	0.001	0.07	-0.08
32	12.000	0.000-14.142	0.947	1001.2	1457.4	517.7	88.6	88.6	0.958	1.009	0.999	-0.020	1.009	-0.001	0.001	0.05	-0.05
34	14.000	0.000-14.142	0.953	1006.3	1459.4	517.3	88.6	88.6	0.963	1.009	0.998	-0.020	1.009	-0.001	0.001	0.07	-0.04
36	16.000	0.000-14.142	0.946	999.7	1459.3	513.6	88.6	88.6	0.953	1.006	0.999	-0.014	1.006	-0.001	0.001	0.07	-0.04
38	18.000	0.000-14.142	0.950	1003.7	1459.8	515.9	88.6	88.6	0.962	1.010	0.999	-0.022	1.010	-0.001	0.001	0.06	-0.03
41	20.000	0.000-14.142	0.949	1003.0	1462.4	516.3	89.1	89.1	0.959	1.009	0.998	-0.021	1.009	-0.001	0.002	0.10	-0.04
44	22.000	0.000-14.142	0.953	1006.8	1462.7	518.5	89.3	89.3	0.965	1.011	0.998	-0.024	1.011	-0.001	0.002	0.11	-0.06
46	24.000	0.000-14.142	0.953	1006.8	1461.0	517.8	89.3	89.3	0.963	1.009	0.999	-0.020	1.009	-0.002	0.002	0.13	-0.10

DATE 9-MAR-78 PROJECT NO PAIC-MOC

Y ARG, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART REX10-6 ALFA CONFIG

TC-532 258 2.996 0.00 20

SURVEY ALFAS

1702

0.02

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
2	-0.000	0.000	0.000	0.945	999.4	1451.0	513.8	88.9	0.956	1.010	0.999	-0.022	1.010	-0.000	-0.001	-0.05	-0.00
3	-4.000	0.000	0.000	0.946	1000.6	1450.2	514.3	88.9	0.959	1.011	0.999	-0.023	1.011	-0.000	-0.001	-0.06	-0.01
4	-2.000	0.000	0.000	0.949	1002.7	1452.5	516.2	89.0	0.959	1.009	0.998	-0.022	1.009	-0.000	-0.001	-0.07	-0.02
5	0.000	0.000	0.000	0.946	1000.6	1451.2	514.5	89.0	0.956	1.009	0.998	-0.021	1.009	-0.000	-0.001	-0.06	-0.01
8	2.000	0.000	0.000	0.949	1003.0	1450.8	513.8	89.0	0.965	1.014	1.000	-0.029	1.014	-0.000	-0.002	-0.10	-0.03
9	4.000	0.000	0.000	0.951	1004.4	1459.0	516.1	89.7	0.965	1.013	1.000	-0.025	1.013	-0.000	-0.002	-0.10	-0.02
10	6.000	0.000	0.000	0.946	1000.5	1459.8	514.1	88.8	0.958	1.011	0.999	-0.023	1.011	-0.000	-0.002	-0.13	-0.01
11	8.000	0.000	0.000	0.946	1000.6	1459.7	514.1	88.9	0.956	1.009	1.000	-0.018	1.009	-0.000	-0.002	-0.13	-0.01
14	10.000	0.000	0.000	0.949	1003.0	1451.0	516.0	88.8	0.962	1.012	0.999	-0.025	1.012	-0.000	-0.003	-0.16	-0.02
15	12.000	0.000	0.000	0.951	1004.3	1459.7	515.9	88.8	0.965	1.013	0.999	-0.027	1.013	-0.000	-0.003	-0.16	-0.03
16	14.000	0.000	0.000	0.946	1000.4	1459.3	513.9	88.7	0.958	1.011	1.000	-0.022	1.011	-0.001	-0.002	-0.14	-0.04
18	16.000	0.000	0.000	0.952	1005.6	1460.3	517.1	88.9	0.966	1.013	0.999	-0.027	1.013	-0.001	-0.003	-0.14	-0.04
20	18.000	0.000	0.000	0.951	1004.9	1461.0	516.9	88.9	0.964	1.011	0.999	-0.024	1.011	-0.001	-0.002	-0.13	-0.05
23	20.000	0.000	0.000	0.952	1005.9	1460.0	517.0	89.2	0.967	1.013	1.000	-0.026	1.013	-0.001	-0.003	-0.15	-0.06
26	22.000	0.000	0.000	0.950	1004.4	1461.1	516.5	89.3	0.961	1.009	0.999	-0.020	1.009	-0.001	-0.002	-0.14	-0.07
29	24.000	0.000	0.000	0.953	1006.6	1460.1	517.4	89.3	0.968	1.013	1.000	-0.027	1.013	-0.002	-0.002	-0.14	-0.10



DATE 9-MAR-78 PROJECT NO P41C-MOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART REX10-6 ALFA CONFIG SURVEY ALFAS  
TC-512 259 2.999 0.00 20 1703 0.01

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	IT	WL	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SMTL
3	-6.000	14.142	0.000	0.931	1004.3	1458.8	516.0	88.6	0.960	1.008	0.999	-0.017	1.008	0.002	-0.000	-0.02	0.14
4	-4.000	14.142	0.000	0.931	1004.1	1458.2	515.0	88.5	0.959	1.007	0.999	-0.016	1.007	0.002	-0.000	-0.02	0.13
5	-2.000	14.142	0.000	0.932	1005.7	1458.2	516.6	88.6	0.964	1.010	1.000	-0.021	1.010	0.002	-0.001	-0.05	0.12
6	0.000	14.142	0.000	0.946	999.7	1459.6	513.7	88.5	0.958	1.011	0.999	-0.024	1.011	0.002	-0.001	-0.06	0.12
7	2.000	14.142	0.000	0.948	1001.4	1457.9	514.1	88.5	0.956	1.008	0.999	-0.017	1.008	0.002	-0.001	-0.06	0.12
8	4.000	14.142	0.000	0.932	1004.9	1458.9	516.5	88.4	0.965	1.012	0.999	-0.025	1.012	0.002	-0.001	-0.07	0.12
9	6.000	14.142	0.000	0.931	1004.4	1457.8	515.8	88.4	0.965	1.013	0.999	-0.026	1.013	0.002	-0.001	-0.07	0.13
10	8.000	14.142	0.000	0.948	1001.9	1457.2	514.2	88.4	0.962	1.012	1.000	-0.024	1.012	0.002	-0.002	-0.11	0.12
12	10.000	14.142	0.000	0.947	1000.7	1459.6	514.4	88.4	0.958	1.010	0.999	-0.022	1.010	0.002	-0.002	-0.13	0.11
15	12.000	14.142	0.000	0.949	1002.2	1460.8	515.6	88.4	0.960	1.010	0.998	-0.023	1.010	0.002	-0.002	-0.13	0.11
17	14.000	14.142	0.000	0.932	1005.3	1458.2	516.4	88.5	0.963	1.010	0.999	-0.021	1.010	0.002	-0.002	-0.11	0.09
19	16.000	14.142	0.000	0.946	999.7	1457.6	513.0	88.6	0.955	1.008	0.999	-0.018	1.008	0.002	-0.003	-0.15	0.10
20	18.000	14.142	0.000	0.934	1007.0	1460.1	514.0	88.6	0.967	1.012	0.998	-0.026	1.012	0.002	-0.003	-0.16	0.09
23	20.000	14.142	0.000	0.949	1002.6	1459.3	515.1	88.7	0.960	1.010	0.999	-0.023	1.010	0.001	-0.001	-0.15	0.08
28	22.000	14.142	0.000	0.947	1001.1	1456.7	513.3	88.9	0.958	1.010	1.001	-0.017	1.010	0.002	-0.003	-0.15	0.09
31	24.000	14.142	0.000	0.931	1005.0	1460.5	516.7	89.2	0.957	1.006	0.998	-0.014	1.006	0.001	-0.003	-0.14	0.07



DATE 9-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WEX10-6 ALFA CONFIG

TC-332 260 2.999 0.00 20 SURVEY ALFAS

1704 0.02

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	YT	MC	WVL/VM	PIL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SMTL
2	14.000	14.142	0.000	0.948	1002.1	1459.8	515.1	88.6	0.959	1.009	0.999	-0.021	1.009	0.002	-0.002	-0.13	0.10
3	14.000	12.000	0.000	0.951	1004.0	1457.5	515.4	88.6	0.962	1.011	1.000	-0.021	1.011	0.002	-0.001	-0.06	0.14
5	14.000	10.000	0.000	0.953	1006.0	1459.7	517.2	88.8	0.964	1.011	0.999	-0.023	1.011	0.002	-0.003	-0.15	0.09
8	14.000	8.000	0.000	0.954	1007.0	1457.9	517.2	88.6	0.964	1.009	1.000	-0.018	1.009	0.000	-0.003	-0.17	0.01
9	14.000	6.000	0.000	0.949	1002.8	1460.6	515.7	88.7	0.960	1.010	0.999	-0.022	1.010	-0.000	-0.003	-0.17	-0.03
10	14.000	4.000	0.000	0.951	1004.1	1458.4	515.7	88.7	0.962	1.010	0.999	-0.021	1.010	-0.000	-0.003	-0.17	-0.02
11	14.000	2.000	0.000	0.954	1006.8	1461.2	518.2	88.7	0.965	1.010	0.997	-0.024	1.010	-0.000	-0.003	-0.19	-0.02
12	14.000	0.000	0.000	0.951	1004.4	1459.0	516.1	88.6	0.963	1.011	0.999	-0.022	1.011	-0.000	-0.003	-0.17	-0.01
13	14.000	-2.000	0.000	0.949	1002.3	1456.6	514.1	88.7	0.963	1.013	1.001	-0.025	1.013	-0.000	-0.003	-0.20	-0.01
14	14.000	-4.000	0.000	0.950	1003.6	1460.2	516.0	88.7	0.960	1.009	0.994	-0.022	1.009	0.000	-0.003	-0.19	0.00
15	14.000	-6.000	0.000	0.949	1003.8	1459.8	515.5	88.7	0.960	1.010	0.998	-0.022	1.010	-0.001	-0.003	-0.17	-0.03
16	14.000	-8.000	0.000	0.948	1001.5	1457.8	514.0	88.7	0.959	1.010	1.000	-0.020	1.010	-0.001	-0.003	-0.16	-0.04
19	14.000	-10.000	0.000	0.949	1002.7	1459.5	515.3	88.6	0.963	1.012	0.998	-0.022	1.012	-0.001	-0.004	-0.20	-0.08
19	14.000	-12.000	0.000	0.950	1003.5	1461.3	516.4	88.7	0.959	1.008	0.997	-0.022	1.008	-0.002	-0.004	-0.22	-0.14
20	14.000	-14.142	0.000	0.947	1001.0	1456.1	515.2	88.6	0.963	1.015	1.001	-0.028	1.015	-0.003	-0.003	-0.17	-0.16

DATE 9-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART PEX10-6 ALPHA CONFIC

TC-532 241 2.998 0.00 20 1705 0.01

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
2	14.000	0.000	14.142	0.950	1003.6	1458.8	515.6	88.6	0.962	1.011	0.999	-0.024	1.011	-0.001	-0.006	-0.34	-0.06
3	14.000	0.000	12.000	0.949	1003.3	1462.5	516.6	88.8	0.961	1.011	0.997	-0.026	1.011	0.000	-0.005	-0.27	0.02
4	14.000	0.000	10.000	0.947	1001.4	1459.3	514.4	88.8	0.958	1.010	0.999	-0.021	1.010	0.000	-0.002	-0.10	0.02
5	14.000	0.000	8.000	0.951	1004.8	1458.1	516.0	88.7	0.960	1.008	1.000	-0.016	1.008	-0.000	0.001	0.04	-0.00
6	14.000	0.000	6.000	0.953	1006.7	1460.9	518.0	88.7	0.968	1.013	0.999	-0.027	1.013	0.000	-0.001	-0.08	0.00
7	14.000	0.000	4.000	0.949	1002.9	1458.9	515.1	88.9	0.962	1.012	1.000	-0.023	1.012	-0.000	-0.003	-0.17	-0.02
8	14.000	0.000	2.000	0.950	1003.9	1462.0	516.8	88.8	0.962	1.010	0.998	-0.024	1.010	-0.000	-0.003	-0.15	-0.02
9	14.000	0.000	0.000	0.950	1003.7	1458.2	515.4	88.8	0.959	1.008	1.000	-0.017	1.008	-0.000	-0.003	-0.15	-0.02
10	14.000	0.000	-2.000	0.949	1002.8	1460.7	515.8	88.8	0.964	1.014	0.999	-0.029	1.014	-0.000	-0.003	-0.18	-0.02
11	14.000	0.000	-4.000	0.955	1008.0	1460.0	518.4	88.8	0.968	1.012	0.999	-0.025	1.012	-0.000	-0.003	-0.17	-0.02
12	14.000	0.000	-6.000	0.946	999.9	1459.1	513.2	88.6	0.956	1.009	1.000	-0.018	1.009	-0.001	-0.004	-0.21	-0.07
13	14.000	0.000	-8.000	0.947	1001.4	1459.0	514.3	88.9	0.959	1.011	1.000	-0.022	1.011	-0.002	-0.005	-0.20	-0.10
14	14.000	0.000	-10.000	0.949	1003.2	1461.0	516.0	88.9	0.960	1.010	0.998	-0.022	1.010	-0.000	-0.002	-0.14	-0.03
15	14.000	0.000	-12.000	0.947	1005.8	1459.6	514.3	88.7	0.958	1.010	1.000	-0.021	1.010	0.000	0.000	0.01	0.02
20	14.000	0.000	-14.142	0.954	1007.4	1463.0	518.7	88.9	0.964	1.009	0.997	-0.022	1.009	-0.000	0.001	0.04	-0.00



DATE 9-MAR-78 PROJECT NO P41C-MOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MEX10-6 ALPHA CONFIG

TC-532 277 3.000 0.00 20

SURVEY ALFAS

1701 0.01

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	ZT	M	VM	PT	O	IT	ML	VEL/VM	PT/PT	CPL	UT/VM	VT/VM	WT/VM	ATL	SMIL
6	-6.000	0.000-14.142	1.053	1092.3	1415.4	545.1	87.2	1.054	1.001	0.998	-0.003	1.001	1.001	0.001	0.004	0.23	-0.04
8	-4.000	0.000-14.142	1.048	1087.6	1415.3	543.4	87.1	1.049	1.001	0.998	-0.003	1.001	1.001	0.001	0.004	0.21	-0.04
9	-2.000	0.000-14.142	1.048	1088.1	1415.0	543.5	87.1	1.049	1.000	0.998	-0.003	1.000	1.000	0.001	0.004	0.23	-0.04
10	0.000	0.000-14.142	1.049	1088.3	1415.6	543.5	87.0	1.053	1.003	0.999	-0.008	1.003	1.003	0.001	0.004	0.22	-0.05
11	2.000	0.000-14.142	1.054	1092.6	1415.1	544.8	86.9	1.060	1.005	0.999	-0.012	1.005	1.005	0.001	0.003	0.17	-0.06
12	4.000	0.000-14.142	1.050	1089.3	1415.4	543.9	86.9	1.057	1.005	0.999	-0.012	1.005	1.005	0.001	0.002	0.12	-0.07
13	6.000	0.000-14.142	1.053	1091.9	1415.3	545.3	87.0	1.057	1.003	0.998	-0.008	1.003	1.003	0.001	0.002	0.11	-0.05
14	8.000	0.000-14.142	1.051	1089.6	1415.9	543.5	86.8	1.061	1.008	0.999	-0.018	1.008	1.008	0.001	0.001	0.09	-0.06
21	10.000	0.000-14.142	1.048	1087.0	1415.7	542.2	86.8	1.059	1.009	0.999	-0.019	1.009	1.009	0.001	0.002	0.09	-0.03
22	12.000	0.000-14.142	1.053	1091.2	1415.6	544.9	86.8	1.053	1.000	0.998	-0.003	1.000	1.000	0.001	0.003	0.14	-0.05
24	14.000	0.000-14.142	1.050	1089.6	1415.5	543.3	86.9	1.051	1.000	0.999	-0.002	1.000	1.000	0.001	0.003	0.16	-0.04
27	16.000	0.000-14.142	1.051	1090.3	1415.2	546.6	87.0	1.048	0.997	0.998	0.003	0.997	0.997	0.001	0.003	0.20	-0.06
30	18.000	0.000-14.142	1.047	1087.3	1415.3	542.8	87.1	1.044	0.998	0.999	0.003	0.997	0.997	0.000	0.003	0.16	-0.01
36	20.000	0.000-14.142	1.053	1092.4	1415.4	545.1	87.3	1.054	1.000	0.999	-0.002	1.000	1.000	0.000	0.003	0.17	-0.00
38	22.000	0.000-14.142	1.049	1089.0	1415.0	543.4	87.3	1.043	0.995	0.998	0.008	0.995	0.995	0.001	0.003	0.15	-0.07
44	24.000	0.000-14.142	1.049	1089.3	1415.8	544.2	87.5	1.050	1.001	0.998	-0.003	1.001	1.001	0.001	0.002	0.14	-0.07



DATE 9-MAR-78 PROJECT NO P41C-HOC

ARO, INC.

AEDC DIVISION

A SYNERGUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART W410-6 ALPHA CONFIC SURVEY ALFAS

TC-512 278 3.000 0.00 20 1702 0.02

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	IT	ML	YSL/VM	PTL/PT	CPL	UT/VM	VT/VM	WY/VM	ATL	SMTL
3	-6.000	0.000	0.000	1.048	1087.1	1415.8	543.1	86.9	1.030	1.002	0.998	-0.007	1.002	0.000	-0.001	-0.08	0.01
4	-4.000	0.000	0.000	1.034	1092.2	1415.2	545.1	86.9	1.035	1.001	0.999	-0.004	1.001	0.000	-0.001	-0.06	0.00
6	-2.000	0.000	0.000	1.034	1092.7	1415.0	545.3	86.9	1.037	1.002	0.999	-0.006	1.002	0.000	-0.000	-0.02	-0.01
7	0.000	0.000	0.000	1.033	1091.2	1415.2	544.8	86.7	1.035	1.002	0.998	-0.005	1.002	0.001	-0.000	-0.03	-0.04
8	2.000	0.000	0.000	1.032	1091.1	1415.4	544.4	86.7	1.031	0.999	0.999	0.001	0.999	0.001	-0.000	-0.02	-0.07
10	4.000	0.000	0.000	1.030	1089.3	1415.9	543.8	86.7	1.032	1.001	0.998	-0.004	1.001	0.001	-0.001	-0.06	-0.04
11	6.000	0.000	0.000	1.034	1092.1	1415.1	544.0	86.6	1.036	1.001	0.999	-0.004	1.001	0.000	-0.001	-0.06	-0.02
14	8.000	0.000	0.000	1.049	1087.9	1413.4	542.6	86.7	1.034	1.006	0.998	-0.015	1.004	0.000	-0.002	-0.14	-0.03
17	10.000	0.000	0.000	1.030	1089.4	1413.1	543.1	86.7	1.037	1.005	1.000	-0.010	1.005	0.000	-0.002	-0.09	-0.02
21	12.000	0.000	0.000	1.033	1091.5	1412.9	544.0	86.7	1.065	1.009	0.998	-0.021	1.009	0.000	-0.003	-0.15	-0.02
24	14.000	0.000	0.000	1.031	1090.0	1415.9	544.8	86.9	1.038	1.006	0.997	-0.015	1.004	0.000	-0.002	-0.14	-0.02
27	16.000	0.000	0.000	1.048	1087.7	1415.9	543.3	87.0	1.048	1.000	0.999	-0.001	1.000	0.002	-0.001	-0.07	-0.07
31	18.000	0.000	0.000	1.032	1091.1	1415.8	544.8	87.1	1.031	0.999	0.999	0.000	0.999	0.001	-0.001	-0.03	-0.07
38	20.000	0.000	0.000	1.039	1089.0	1417.2	544.3	87.3	1.031	1.002	0.998	-0.005	1.002	0.001	-0.001	-0.08	-0.07
41	22.000	0.000	0.000	1.034	1092.8	1417.7	544.6	87.3	1.032	0.999	0.999	0.002	0.999	0.001	-0.001	-0.07	-0.05
43	24.000	0.000	0.000	1.031	1090.2	1412.1	544.7	87.4	1.046	0.996	0.999	0.006	0.996	0.002	-0.001	-0.06	-0.10

DATE 9-MAR-78 PROJECT NO P41C-W0C

ARO, INC.

ARDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARDC AIR FORCE STATION, TENNESSEE

TEST PART PEX10-6 ALFA CONFIG SURVEY ALFAS

TC-532 379 2.984 0.00 20 1703 0.01

DATE 2-17-78  
ARDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	ATL	STL
6	-6.000	14.142	0.000	1.047	1086.6	1411.9	541.5	84.5	1.035	1.006	0.999	-0.012	1.006	0.002	0.000	0.00	0.11
7	-4.000	14.142	0.000	1.051	1089.3	1413.2	543.2	84.5	1.049	0.999	0.999	0.000	0.999	0.001	0.000	0.00	0.06
8	-2.000	14.142	0.000	1.053	1091.7	1412.4	544.0	84.5	1.056	1.002	1.000	-0.004	1.002	0.001	-0.001	-0.04	0.07
9	0.000	14.142	0.000	1.054	1092.3	1413.2	544.6	84.4	1.053	0.999	0.999	0.001	0.999	0.001	-0.000	-0.02	0.08
11	2.000	14.142	0.000	1.053	1091.3	1412.6	543.9	84.5	1.052	0.999	0.999	0.001	0.999	0.002	0.000	0.03	0.11
12	4.000	14.142	0.000	1.051	1089.3	1414.8	543.9	84.4	1.057	1.005	0.998	-0.012	1.005	0.002	-0.001	-0.05	0.12
19	6.000	14.142	0.000	1.046	1085.4	1413.0	541.4	84.4	1.054	1.004	0.999	-0.009	1.004	0.002	-0.001	-0.08	0.12
20	8.000	14.142	0.000	1.050	1088.9	1415.7	544.0	84.5	1.054	1.003	0.997	-0.009	1.003	0.002	-0.002	-0.10	0.14
22	10.000	14.142	0.000	1.052	1090.6	1413.9	544.1	84.5	1.058	1.004	0.998	-0.011	1.004	0.002	-0.002	-0.13	0.12
26	12.000	14.142	0.000	1.050	1089.1	1413.0	543.0	84.5	1.053	1.002	0.998	-0.006	1.002	0.001	-0.002	-0.10	0.09
28	14.000	14.142	0.000	1.049	1088.2	1414.3	543.1	84.7	1.053	1.003	0.999	-0.007	1.003	0.001	-0.002	-0.11	0.05
32	16.000	14.142	0.000	1.046	1086.2	1414.8	542.3	84.9	1.049	1.002	0.999	-0.005	1.002	0.000	-0.001	-0.08	0.03
37	18.000	14.142	0.000	1.051	1090.4	1415.8	544.5	87.0	1.048	0.994	0.998	-0.009	0.994	-0.000	-0.001	-0.05	0.00
40	20.000	14.142	0.000	1.047	1086.6	1414.5	542.3	87.1	1.048	1.001	0.999	-0.002	1.001	-0.000	-0.002	-0.13	0.00
44	22.000	14.142	0.000	1.053	1092.3	1414.7	544.8	87.2	1.048	0.997	0.999	0.005	0.997	0.001	-0.002	-0.12	0.07
45	24.000	14.142	0.000	1.054	1093.2	1415.5	545.5	87.3	1.050	0.997	0.999	0.005	0.997	0.001	-0.001	-0.08	0.05



DATE 9-MAR-78 PROJECT NO PAIC-WOC

ARD, INC.

AEDC DIVISION

A EVERHOP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARGO AIR FORCE STATION, TENNESSEE

TEST PNT RE10-6 ALPHA CONFIG SURVEY ALFAS

TC-532 280 3.004 0.00 20 1704 0.02

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

POINT	XT	YT	IT	M	VM	PT	Q	TV	ML	VEL/VM	PTL/PT	CDL	UT/VM	VT/VM	WT/VM	ATL	SWTL
5	14.000	14.142	0.000	1.054	1092.8	1415.3	545.5	86.7	1.057	1.002	0.997	-0.008	1.002	0.001	-0.002	-0.09	0.03
8	14.000	12.000	0.000	1.052	1091.2	1415.6	545.9	86.8	1.059	1.005	0.998	-0.012	1.005	0.002	-0.001	-0.03	0.10
9	14.000	10.000	0.000	1.049	1088.5	1415.8	543.7	86.9	1.051	1.002	0.998	-0.006	1.002	0.000	-0.002	-0.12	0.01
10	14.000	8.000	0.000	1.050	1088.7	1415.4	543.7	86.8	1.052	1.002	0.998	-0.007	1.002	0.001	-0.003	-0.15	-0.06
11	14.000	6.000	0.000	1.052	1090.8	1415.4	548.6	86.9	1.060	1.007	0.999	-0.015	1.007	0.001	-0.003	-0.15	-0.05
12	14.000	4.000	0.000	1.052	1090.7	1413.7	543.8	86.9	1.061	1.007	0.999	-0.016	1.007	0.001	-0.003	-0.16	-0.04
13	14.000	2.000	0.000	1.054	1093.1	1416.8	546.1	87.0	1.065	1.008	0.998	-0.019	1.008	0.001	-0.003	-0.18	-0.03
14	14.000	0.000	0.000	1.053	1092.3	1416.1	545.4	87.0	1.062	1.007	0.998	-0.016	1.007	0.000	-0.003	-0.19	-0.01
15	14.000	-2.000	0.000	1.051	1090.2	1415.0	545.1	87.0	1.060	1.007	0.999	-0.016	1.007	0.000	-0.003	-0.16	-0.01
16	14.000	-4.000	0.000	1.050	1089.2	1414.2	543.3	87.0	1.060	1.008	0.999	-0.020	1.008	0.001	-0.003	-0.16	-0.04
17	14.000	-6.000	0.000	1.050	1089.0	1417.7	546.6	87.0	1.060	1.008	0.997	-0.020	1.008	0.001	-0.003	-0.15	-0.06
18	14.000	-8.000	0.000	1.047	1084.6	1414.9	543.5	86.9	1.058	1.009	0.999	-0.018	1.009	0.001	-0.003	-0.16	-0.04
20	14.000	-10.000	0.000	1.048	1087.6	1415.4	543.1	86.9	1.057	1.007	0.999	-0.015	1.007	0.000	-0.003	-0.13	-0.02
21	14.000	-12.000	0.000	1.051	1089.7	1417.1	543.7	86.7	1.060	1.007	0.998	-0.017	1.007	0.001	-0.003	-0.17	-0.08
22	14.000	-14.142	0.000	1.048	1087.7	1416.0	543.4	86.9	1.056	1.006	0.999	-0.014	1.006	0.001	-0.002	-0.13	-0.07

DATE 9-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMED AIR FORCE STATION, TENNESSEE

TEST PART PEX10-6 ALPHA CONFIG SURVEY ALFAS

1705 0.01

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	O	TT	ML	VVL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	A1TL	SMTL
2	14.000	0.000	14.142	1.049	1088.2	1415.6	543.4	87.0	1.049	1.000	0.998	-0.003	1.000	-0.001	-0.005	-0.29	-0.04
3	14.000	0.000	12.000	1.049	1088.1	1415.7	543.4	87.0	1.051	1.002	0.999	-0.005	1.002	0.000	-0.004	-0.22	0.00
4	14.000	0.000	10.000	1.048	1087.5	1415.9	543.2	87.0	1.053	1.004	0.998	-0.010	1.004	-0.000	-0.001	-0.08	-0.01
7	14.000	0.000	8.000	1.047	1086.8	1415.7	542.8	87.0	1.056	1.007	0.998	-0.016	1.007	0.000	0.000	0.01	0.00
8	14.000	0.000	6.000	1.052	1090.9	1416.9	545.1	87.0	1.056	1.004	0.998	-0.010	1.004	-0.000	-0.001	-0.07	-0.03
10	14.000	0.000	4.000	1.053	1091.7	1416.3	545.2	87.0	1.062	1.007	0.999	-0.016	1.007	-0.000	-0.003	-0.14	-0.02
11	14.000	0.000	2.000	1.056	1084.1	1417.2	543.1	87.0	1.057	1.008	0.998	-0.019	1.008	-0.000	-0.003	-0.16	-0.03
12	14.000	0.000	0.000	1.054	1092.3	1417.0	545.8	87.0	1.059	1.004	0.998	-0.011	1.004	-0.000	-0.002	-0.13	-0.01
13	14.000	0.000	-2.000	1.048	1087.7	1416.5	543.5	87.1	1.056	1.006	0.998	-0.015	1.006	-0.000	-0.002	-0.13	-0.02
16	14.000	0.000	-4.000	1.047	1086.8	1415.1	542.6	87.0	1.051	1.003	0.999	-0.008	1.003	-0.001	-0.002	-0.11	-0.04
17	14.000	0.000	-6.000	1.054	1092.7	1415.9	545.2	87.0	1.056	1.002	1.000	-0.003	1.002	-0.001	-0.002	-0.12	-0.06
18	14.000	0.000	-8.000	1.054	1092.3	1415.5	545.2	87.0	1.057	1.003	0.998	-0.008	1.003	-0.002	-0.003	-0.19	-0.09
19	14.000	0.000	-10.000	1.050	1085.1	1415.5	543.4	87.0	1.048	0.998	0.999	-0.002	0.998	-0.000	-0.000	-0.01	-0.00
20	14.000	0.000	-12.000	1.047	1085.9	1416.1	543.0	87.0	1.048	1.000	0.999	-0.002	1.000	0.001	0.002	0.12	0.03
21	16.000	0.000	-14.142	1.046	1085.7	1414.3	541.8	87.0	1.048	1.002	0.999	-0.005	1.002	0.000	0.003	0.15	0.02



DATE 9-MAR-78 PROJECT NO PAIC-80C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

AROLD AIR FORCE STATION, TENNESSEE

TEST PART HEXIO-6 ALFA CONFIG

TC-332 283 3.001 0.00 20 1701 0.02

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VNL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
8	-8.000	0.000-14.142	1.102	1132.1	1401.7	535.7	86.3	1.108	1.005	0.997	-0.013	1.005	-0.000	0.004	0.22	-0.02	
9	-8.000	0.000-14.142	1.103	1132.2	1401.7	537.1	86.2	1.110	1.005	0.997	-0.014	1.001	0.000	0.004	0.23	0.01	
11	-8.000	0.000-14.142	1.101	1131.2	1399.6	535.5	86.1	1.112	1.008	0.998	-0.018	1.008	0.000	0.004	0.24	0.01	
12	0.000	0.000-14.142	1.099	1129.7	1399.3	534.9	86.0	1.103	1.003	0.998	-0.008	1.003	-0.001	0.004	0.20	-0.05	
13	2.000	0.000-14.142	1.100	1129.9	1400.0	535.3	86.0	1.106	1.005	0.998	-0.012	1.005	-0.001	0.003	0.19	-0.06	
14	4.000	0.000-14.142	1.102	1132.1	1402.7	537.2	86.0	1.115	1.009	0.997	-0.021	1.009	-0.001	0.003	0.15	-0.05	
15	6.000	0.000-14.142	1.103	1132.6	1400.4	536.4	86.0	1.103	1.005	0.997	-0.012	1.005	-0.001	0.002	0.12	-0.07	
16	8.000	0.000-14.142	1.100	1130.1	1398.6	534.8	86.0	1.115	1.011	0.998	-0.023	1.011	-0.001	0.001	0.03	-0.05	
17	10.000	0.000-14.142	1.103	1132.7	1400.6	536.6	86.0	1.119	1.012	0.997	-0.027	1.012	-0.001	0.000	0.01	-0.03	
18	12.000	0.000-14.142	1.098	1128.9	1399.4	534.6	86.0	1.104	1.004	0.998	-0.010	1.004	-0.000	0.002	0.10	-0.03	
27	18.000	0.000-14.142	1.100	1130.7	1399.7	535.4	86.1	1.113	1.009	0.997	-0.022	1.009	-0.001	0.002	0.14	-0.04	
31	16.000	0.000-14.142	1.098	1129.0	1401.0	535.2	86.3	1.105	1.005	0.997	-0.013	1.005	0.000	0.003	0.16	0.02	
34	18.000	0.000-14.142	1.102	1132.7	1400.2	536.2	86.4	1.110	1.005	0.998	-0.013	1.005	0.000	0.003	0.17	0.01	
35	20.000	0.000-14.142	1.102	1132.4	1402.6	537.1	86.4	1.105	1.002	0.997	-0.008	1.002	-0.000	0.003	0.20	-0.02	
36	22.000	0.000-14.142	1.102	1132.4	1401.6	536.7	86.4	1.104	1.001	0.998	-0.005	1.001	0.000	0.004	0.22	0.02	
38	28.000	0.000-14.142	1.103	1135.1	1402.9	539.1	86.7	1.103	0.999	0.997	-0.001	0.999	-0.001	0.003	0.15	-0.08	

DATE 9-MAR-78 PROJECT NO P41C-MOC

Y AFO, INC.

AEDC DIVISION

A EVERHURST CORPORATION COMPANY

PROPELLION WIND TUNNEL

ARMED AIR FORCE STATION, TENNESSEE

TEST PART PER10-6 ALPHA CONFIC SURVEY ALFA

1701 0.02

DATE

2-17-78

AEDC PROPELLION WIND TUNNEL

TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VEL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	ATL	SWTL
7	-4.000	0.000-14.142	1.102	1137.2	1397.6	553.2	85.9	1.111	1.007	0.998	-0.016	1.007	1.007	0.000	0.003	0.16	-0.01
8	-4.000	0.000-14.142	1.102	1131.4	1398.7	553.4	85.9	1.110	1.006	0.998	-0.014	1.006	1.006	0.000	0.003	0.19	0.01
9	-2.000	0.000-14.142	1.101	1130.3	1398.6	553.0	85.7	1.112	1.009	0.998	-0.019	1.009	1.009	0.000	0.004	0.23	0.00
10	0.000	0.000-14.142	1.101	1130.7	1401.5	553.3	85.7	1.105	1.003	0.997	-0.010	1.003	1.003	0.001	0.003	0.17	0.06
11	2.000	0.000-14.142	1.098	1128.3	1398.6	553.4	85.7	1.105	1.005	0.998	-0.013	1.005	1.005	0.001	0.003	0.18	0.05
12	4.000	0.000-14.142	1.099	1129.3	1397.8	554.2	85.7	1.108	1.006	0.997	-0.016	1.006	1.006	0.001	0.002	0.09	0.05
13	6.000	0.000-14.142	1.103	1132.6	1398.9	553.2	85.7	1.109	1.004	0.998	-0.011	1.004	1.004	0.001	0.002	0.09	0.08
14	8.000	0.000-14.142	1.099	1129.3	1397.0	553.9	85.7	1.113	1.010	0.998	-0.023	1.010	1.010	0.001	0.001	0.04	0.04
15	10.000	0.000-14.142	1.099	1129.1	1398.4	553.5	85.6	1.113	1.010	0.997	-0.023	1.010	1.010	0.002	0.000	0.02	0.09
20	12.000	0.000-14.142	1.096	1128.7	1398.8	553.6	85.7	1.101	1.004	0.997	-0.011	1.004	1.004	0.001	0.002	0.12	0.04
21	14.000	0.000-14.142	1.098	1127.9	1397.8	553.7	85.7	1.109	1.009	0.998	-0.020	1.009	1.009	0.001	0.002	0.12	0.05
28	16.000	0.000-14.142	1.097	1127.4	1400.1	553.3	85.9	1.098	0.999	0.998	-0.001	0.999	0.999	0.000	0.003	0.20	0.02
33	18.000	0.000-14.142	1.105	1134.2	1401.2	553.4	86.0	1.107	1.002	0.996	-0.008	1.002	1.002	0.000	0.004	0.21	0.02
35	20.000	0.000-14.142	1.101	1131.2	1395.4	555.5	86.1	1.105	1.003	0.999	-0.007	1.003	1.003	0.001	0.003	0.19	0.05
36	22.000	0.000-14.142	1.103	1132.8	1402.2	553.4	86.1	1.102	0.999	0.998	-0.001	0.999	0.999	0.000	0.004	0.20	0.02
41	24.000	0.000-14.142	1.104	1133.9	1403.2	553.5	86.4	1.101	0.998	0.997	0.000	0.998	0.998	0.001	0.003	0.16	0.07



DATE 9-MAR-78 PROJECT NO PAIC-NOC

7 ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARGOLD AIR FORCE STATION, TENNESSEE

TEST PART PEX10-A ALPHA CONFIG SURVEY ALPHA

TC-332 386 3.001 0.00 20 1702 0.02

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL  
TRANSMIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VVL/VM	PFL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SMTL
2	-6.000	0.000	0.000	1.100	1129.4	1399.5	535.0	85.6	1.102	1.002	0.998	-0.007	1.002	0.000	-0.000	-0.00	0.00
3	-4.000	0.000	0.000	1.100	1130.0	1397.7	534.6	85.5	1.113	1.009	0.998	-0.021	1.009	0.000	0.000	0.00	0.02
4	-2.000	0.000	0.000	1.101	1130.1	1397.1	534.4	85.4	1.109	1.006	0.999	-0.013	1.006	0.001	-0.002	-0.09	0.07
6	0.000	0.000	0.000	1.103	1132.2	1399.0	536.0	85.4	1.113	1.007	0.997	-0.018	1.007	-0.001	-0.002	-0.12	-0.04
7	2.000	0.000	0.000	1.103	1132.2	1398.3	535.7	85.4	1.108	1.004	0.997	-0.010	1.004	-0.000	-0.001	-0.04	-0.01
12	4.000	0.000	0.000	1.097	1137.1	1399.6	534.3	85.4	1.097	1.000	0.997	-0.004	1.000	-0.002	-0.001	-0.08	-0.10
16	6.000	0.000	0.000	1.102	1131.1	1397.9	535.1	85.5	1.104	1.002	0.998	-0.007	1.002	-0.002	-0.000	-0.01	-0.11
19	8.000	0.000	0.000	1.103	1132.5	1399.3	536.2	85.5	1.113	1.007	0.997	-0.018	1.007	-0.001	-0.002	-0.11	-0.06
22	10.000	0.000	0.000	1.102	1131.7	1398.9	535.7	85.5	1.113	1.007	0.998	-0.017	1.007	-0.001	-0.002	-0.10	-0.03
24	12.000	0.000	0.000	1.101	1130.9	1395.5	534.0	85.6	1.120	1.014	0.998	-0.029	1.014	-0.000	-0.003	-0.16	-0.02
26	14.000	0.000	0.000	1.098	1128.2	1398.7	534.2	85.7	1.111	1.010	0.997	-0.023	1.010	0.000	-0.002	-0.12	0.01
30	16.000	0.000	0.000	1.099	1129.0	1397.6	534.0	85.8	1.112	1.010	0.998	-0.023	1.010	0.000	-0.003	-0.15	0.00
33	18.000	0.000	0.000	1.102	1131.7	1397.5	535.1	85.7	1.113	1.008	0.999	-0.017	1.008	-0.000	-0.003	-0.16	-0.02
37	20.000	0.000	0.000	1.097	1127.4	1401.2	534.7	86.0	1.094	0.998	0.997	-0.001	0.998	-0.002	-0.002	-0.13	-0.10
42	22.000	0.000	0.000	1.099	1129.2	1401.0	535.3	86.1	1.101	1.002	0.998	-0.006	1.002	-0.001	-0.001	-0.08	-0.04
43	24.000	0.000	0.000	1.096	1127.3	1398.1	533.4	86.3	1.100	1.003	1.000	-0.006	1.003	-0.002	-0.001	-0.06	-0.05





DATE 9-MAR-78 PROJECT NO PAIC-80C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART REX10-6 ALFA CONFIG

TC-332 288 3.004 0.00 20 1704 0.01

AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

DATE  
2-17-78

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VWL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	ATL	SWTL
6	14.000	14.142	0.000	1.104	1132.9	1400.5	558.8	85.6	1.110	1.004	0.997	-0.013	1.004	0.000	-0.000	-0.02	0.02
8	14.000	12.000	0.000	1.101	1130.4	1401.2	556.0	85.7	1.113	1.009	0.996	-0.022	1.009	0.001	0.000	0.02	0.05
9	14.000	10.000	0.000	1.100	1128.9	1398.8	558.8	85.9	1.110	1.008	0.998	-0.018	1.008	0.001	0.000	0.02	0.05
10	14.000	8.000	0.000	1.100	1130.2	1399.7	555.3	85.9	1.109	1.007	0.998	-0.016	1.007	0.000	-0.001	-0.08	0.02
11	14.000	6.000	0.000	1.103	1132.6	1401.4	556.9	85.9	1.112	1.007	0.996	-0.018	1.007	0.000	-0.002	-0.09	-0.01
12	14.000	4.000	0.000	1.104	1133.5	1401.5	557.3	85.9	1.113	1.007	0.996	-0.018	1.007	0.000	-0.001	-0.09	-0.01
13	14.000	2.000	0.000	1.104	1131.2	1399.8	558.5	85.9	1.110	1.004	0.997	-0.012	1.004	0.000	-0.001	-0.08	-0.01
14	14.000	0.000	0.000	1.102	1132.5	1401.4	556.8	86.0	1.110	1.005	0.997	-0.014	1.005	0.000	-0.002	-0.09	-0.01
15	14.000	-2.000	0.000	1.101	1130.6	1400.0	555.3	86.0	1.113	1.009	0.998	-0.021	1.009	0.000	-0.002	-0.10	-0.02
16	14.000	-4.000	0.000	1.099	1129.7	1400.2	555.3	86.0	1.112	1.009	0.997	-0.021	1.009	0.001	-0.003	-0.16	-0.05
17	14.000	-6.000	0.000	1.098	1128.5	1400.1	558.7	86.0	1.105	1.005	0.997	-0.014	1.005	0.000	-0.001	-0.08	0.01
18	14.000	-8.000	0.000	1.101	1130.9	1400.4	555.8	86.0	1.107	1.005	0.998	-0.012	1.005	0.000	-0.001	-0.08	0.01
19	14.000	-10.000	0.000	1.101	1131.2	1399.3	555.3	86.0	1.111	1.007	0.998	-0.016	1.007	0.002	-0.002	-0.11	-0.09
20	14.000	-12.000	0.000	1.100	1130.4	1401.0	555.8	86.0	1.108	1.006	0.998	-0.015	1.006	0.003	-0.003	-0.18	-0.15
21	14.000	-14.142	0.000	1.097	1127.3	1399.4	558.1	85.9	1.105	1.006	0.998	-0.015	1.006	0.003	-0.001	-0.07	-0.17

DATE 9-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARGOLD AIR FORCE STATION, TENNESSEE

TEST PART BEXIO-6 ALPHA CONFIG

TC-332 289 2.995 0.00 20 1705 0.01

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

POINT	XT	YT	ZT	M	VM	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SATL
2	14.000	0.000	14.142	1.097	1127.9	1398.7	534.0	86.0	1.098	1.000	0.998	-0.003	1.000	-0.002	-0.003	-0.20	-0.09
3	14.000	0.000	12.000	1.102	1131.9	1399.9	536.0	86.0	1.105	1.003	0.997	-0.008	1.002	-0.000	-0.002	-0.12	-0.02
5	14.000	0.000	10.000	1.099	1129.7	1399.9	535.1	86.1	1.105	1.004	0.998	-0.011	1.004	-0.000	-0.000	-0.02	-0.01
6	14.000	0.000	8.000	1.097	1127.7	1400.1	534.4	86.0	1.104	1.005	0.998	-0.013	1.005	0.000	0.001	0.07	0.01
7	14.000	0.000	6.000	1.099	1129.3	1401.3	535.5	86.1	1.107	1.006	0.998	-0.014	1.006	0.000	-0.001	-0.07	0.01
8	14.000	0.000	4.000	1.101	1130.9	1402.9	536.8	86.0	1.108	1.005	0.996	-0.015	1.005	0.000	-0.001	-0.07	0.01
9	14.000	0.000	2.000	1.099	1129.1	1399.1	534.6	86.0	1.106	1.006	0.998	-0.013	1.006	-0.000	-0.000	-0.00	-0.02
10	14.000	0.000	0.000	1.100	1129.9	1401.8	536.0	86.0	1.109	1.007	0.997	-0.016	1.007	-0.001	-0.000	-0.01	-0.03
12	14.000	0.000	-2.000	1.096	1127.4	1398.5	533.6	86.1	1.115	1.013	0.999	-0.027	1.013	-0.000	-0.001	-0.07	-0.01
13	14.000	0.000	-4.000	1.100	1130.5	1402.2	536.3	86.1	1.112	1.008	0.997	-0.020	1.008	-0.000	-0.001	-0.06	-0.01
14	14.000	0.000	-6.000	1.103	1132.3	1402.0	537.0	86.0	1.116	1.010	0.996	-0.025	1.010	-0.001	-0.001	-0.06	-0.05
15	14.000	0.000	-8.000	1.099	1129.3	1398.9	534.6	86.0	1.106	1.005	0.998	-0.012	1.005	-0.002	-0.001	-0.06	-0.09
16	14.000	0.000	-10.000	1.096	1127.2	1400.2	534.3	86.0	1.107	1.007	0.997	-0.018	1.007	-0.001	0.000	0.02	-0.08
17	14.000	0.000	-12.000	1.102	1132.0	1402.1	536.9	86.0	1.107	1.003	0.997	-0.011	1.003	-0.001	0.004	0.21	-0.06
18	14.000	0.000	-14.142	1.102	1131.7	1400.1	536.0	86.1	1.111	1.003	0.997	-0.017	1.007	-0.001	0.004	0.24	-0.03



DATE 7-MAR-78 PROJECT NO PAIC-N0C

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMED AIR FORCE STATION, TENNESSEE

TEST PART MACH PT

TC-532 223 0.927 2.994 1447.9 831.4 499.8 977.1 82.5

DATE 2-17-78  
AEC PROPULSION WIND TUNNEL  
TRANSONIC 47ALFA CONFIG SURVEY 200  
ALFAS 0.01  
PRAR 2050.9  
X 11.218  
Y 0.000  
Z -2.297

PNT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.9	1.235	0.273	-0.012	-0.224	-0.199	-0.240	0.023	-0.001	-0.002	0.000	0.001	-0.001	-0.001	0.000	0.001	-0.004	-0.006	-0.011	-0.039
8	-144.9	1.239	0.270	-0.015	-0.221	-0.198	-0.243	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.002	-0.000	-0.008	-0.008	-0.012	-0.041
9	-155.0	1.231	0.271	-0.015	-0.221	-0.199	-0.241	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.002	-0.001	-0.008	-0.008	-0.012	-0.040
10	-144.9	1.231	0.271	-0.013	-0.225	-0.199	-0.241	0.023	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.039
11	-135.1	1.239	0.271	-0.013	-0.225	-0.199	-0.239	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
12	-125.1	1.239	0.272	-0.012	-0.225	-0.199	-0.237	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.002	-0.000	-0.005	-0.008	-0.012	-0.040
13	-115.1	1.231	0.271	-0.011	-0.224	-0.199	-0.231	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.002	-0.000	-0.005	-0.007	-0.011	-0.040
14	-105.0	1.232	0.274	-0.010	-0.224	-0.199	-0.231	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
15	-95.0	1.233	0.274	-0.010	-0.224	-0.199	-0.231	0.022	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
16	-85.0	1.230	0.274	-0.009	-0.223	-0.199	-0.229	0.022	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
17	-74.9	1.231	0.275	-0.009	-0.224	-0.199	-0.228	0.022	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.038
18	-65.0	1.230	0.275	-0.009	-0.224	-0.199	-0.228	0.021	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.001	-0.005	-0.007	-0.011	-0.038
19	-54.9	1.232	0.271	-0.008	-0.223	-0.199	-0.226	0.023	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.038
20	-45.1	1.232	0.276	-0.008	-0.223	-0.199	-0.227	0.022	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.039
21	-35.1	1.234	0.271	-0.008	-0.221	-0.199	-0.228	0.023	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.038
22	-25.1	1.230	0.275	-0.009	-0.223	-0.199	-0.231	0.023	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
23	-15.0	1.230	0.275	-0.010	-0.223	-0.199	-0.231	0.022	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
24	-5.0	1.239	0.274	-0.010	-0.223	-0.199	-0.235	0.022	-0.003	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
25	5.0	1.233	0.276	-0.011	-0.224	-0.199	-0.240	0.024	-0.000	-0.000	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
26	15.0	1.233	0.276	-0.011	-0.224	-0.199	-0.240	0.024	-0.000	-0.000	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
27	25.0	1.228	0.273	-0.011	-0.224	-0.199	-0.241	0.023	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
28	35.0	1.231	0.274	-0.011	-0.223	-0.199	-0.241	0.025	-0.001	-0.003	-0.000	0.000	-0.001	-0.001	-0.000	-0.000	-0.005	-0.007	-0.011	-0.040
29	45.0	1.233	0.274	-0.011	-0.223	-0.199	-0.241	0.025	-0.001	-0.003	-0.000	0.000	-0.001	-0.001	-0.000	-0.000	-0.005	-0.007	-0.011	-0.040
30	55.0	1.233	0.274	-0.011	-0.223	-0.199	-0.241	0.025	-0.001	-0.003	-0.000	0.000	-0.001	-0.001	-0.000	-0.000	-0.005	-0.007	-0.011	-0.040
31	64.9	1.230	0.273	-0.013	-0.225	-0.199	-0.246	0.026	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
32	74.9	1.231	0.273	-0.013	-0.225	-0.199	-0.246	0.026	-0.002	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
33	84.9	1.231	0.273	-0.013	-0.225	-0.199	-0.246	0.027	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
34	94.9	1.233	0.273	-0.014	-0.225	-0.199	-0.251	0.027	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
35	105.0	1.235	0.273	-0.013	-0.225	-0.199	-0.251	0.028	-0.000	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
36	115.0	1.233	0.273	-0.013	-0.225	-0.199	-0.251	0.028	-0.000	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
37	125.0	1.230	0.273	-0.015	-0.225	-0.199	-0.253	0.028	-0.000	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
38	134.9	1.233	0.273	-0.015	-0.225	-0.199	-0.253	0.028	-0.000	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
39	144.9	1.232	0.273	-0.015	-0.225	-0.199	-0.251	0.028	-0.000	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
40	154.9	1.239	0.269	-0.015	-0.226	-0.199	-0.248	0.028	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
41	164.9	1.231	0.273	-0.015	-0.226	-0.199	-0.247	0.028	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
42	174.9	1.233	0.271	-0.014	-0.226	-0.199	-0.245	0.028	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040
43	184.9	1.233	0.271	-0.014	-0.226	-0.199	-0.245	0.028	-0.001	-0.003	-0.001	0.000	-0.002	-0.003	-0.001	-0.000	-0.005	-0.007	-0.011	-0.040

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX	-0.0331	-0.0577	-0.0526	-0.0274	-0.1718	-0.0321	-0.0088	-0.0023	-0.0054
CY	0.0171	0.0472	0.0713	-0.1052	0.3118	-0.1003	-0.0299	-0.0215	-0.0174
CAX	2.6183	-0.1441	-2.0398	-1.3181	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	-0.0047	-0.0076	-0.0105	-0.0066	-0.0078	-0.0093	-0.0051	-0.0070	-0.0135
CY	-0.0148	-0.0190	-0.0157	-0.0178	-0.0153	-0.0178	-0.0107	-0.0133	-0.0129
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	-0.010	0.000	0.041	-0.016	0.022				

DATE 7-MAR-78 PROJECT NO P41C-M0C

190, INC.

AGDC DIVISION

A SVERDRUP CORPORATION COMPANY

# PROPELSTON WIND TUNNEL

RECEIVED BY AIR FORCE STATION. TENSESSSS

ARMED AIR FORCE STATION, TENNESSEE  
TFC2 2152 WACM 2510-4 25

TEST	224	0.926	2.998	1.450
PC-512	224	0.926	2.998	1.450

DATE AEDC PROPULSION WIND TUNNEL  
2-17-70 TPANSONIC 4T

ALPHA	CONFID	SURVEY	ALFAS	PRAR	X	Y	Z
0.00	11	200	2.01	2051.1	11.218	0.000	-2.297

PR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
001	1.235	0.311	0.016	-0.795	-0.403	-0.204	0.014	-0.001	-0.002	0.001	0.002	0.000	0.000	0.002	0.002	0.002	0.005	0.003	0.033
1	1.235	0.314	0.024	-0.197	-0.400	-0.189	0.015	0.001	-0.001	0.001	0.003	0.001	0.000	0.002	0.002	0.002	0.004	0.003	0.034
2	1.235	0.314	0.024	-0.197	-0.400	-0.189	0.015	0.001	-0.001	0.001	0.003	0.001	0.000	0.002	0.002	0.002	0.004	0.003	0.034
3	1.233	0.312	0.024	-0.197	-0.403	-0.203	0.016	0.002	-0.001	0.001	0.002	0.000	0.000	0.001	0.002	0.002	0.005	0.003	0.035
4	1.236	0.308	0.019	-0.200	-0.403	-0.229	0.017	0.003	-0.001	0.001	0.002	0.000	0.000	0.001	0.002	0.002	0.005	0.003	0.035
5	1.233	0.304	0.014	-0.203	-0.403	-0.253	0.016	0.003	-0.002	0.000	0.000	-0.002	0.002	0.003	0.001	0.002	0.005	0.003	0.038
6	1.233	0.299	0.009	-0.208	-0.403	-0.266	0.017	0.004	-0.003	0.002	0.000	-0.002	0.003	0.002	0.002	0.003	0.008	0.01	0.038
7	1.231	0.293	0.004	-0.211	-0.405	-0.275	0.018	0.004	-0.003	0.001	0.000	-0.002	0.003	0.002	0.002	0.003	0.005	0.007	0.039
8	1.235	0.288	0.000	-0.216	-0.400	-0.285	0.018	0.003	-0.004	0.000	0.000	-0.003	0.003	0.002	0.002	0.003	0.008	0.01	0.040
9	1.234	0.293	0.003	-0.221	-0.396	-0.292	0.017	0.003	-0.005	0.003	0.002	-0.004	0.003	0.003	0.003	0.008	0.01	0.040	0.042
10	1.232	0.292	0.010	-0.226	-0.391	-0.296	0.018	0.003	-0.005	0.003	0.002	-0.004	0.003	0.004	0.003	0.008	0.01	0.042	0.042
11	1.230	0.286	0.019	-0.228	-0.381	-0.296	0.020	0.003	-0.003	0.003	0.002	-0.001	0.003	0.003	0.002	0.01	0.005	0.009	0.041
12	1.233	0.280	0.025	-0.233	-0.374	-0.300	0.020	0.002	-0.003	0.001	0.001	-0.003	0.003	0.003	0.003	0.007	0.009	0.01	0.042
13	1.229	0.282	0.032	-0.238	-0.365	-0.301	0.020	0.003	-0.003	0.003	0.001	-0.004	0.003	0.003	0.003	0.007	0.009	0.01	0.043
14	1.231	0.249	0.040	-0.241	-0.368	-0.300	0.021	0.000	-0.002	0.001	0.002	-0.001	0.003	0.003	0.002	0.008	0.01	0.043	0.042
15	1.232	0.249	0.035	-0.244	-0.361	-0.298	0.020	0.000	-0.001	0.000	0.001	-0.002	0.002	0.002	0.002	0.01	0.005	0.009	0.042
16	1.231	0.238	0.045	-0.248	-0.356	-0.300	0.018	0.000	-0.003	0.002	0.001	-0.003	0.003	0.003	0.002	0.007	0.01	0.044	0.044
17	1.229	0.234	0.040	-0.250	-0.357	-0.297	0.019	0.000	-0.003	0.001	0.001	-0.003	0.003	0.003	0.002	0.007	0.01	0.044	0.042
18	1.232	0.234	0.040	-0.250	-0.358	-0.295	0.021	0.000	-0.000	0.001	0.002	-0.001	0.003	0.003	0.002	0.007	0.01	0.042	0.042
19	1.231	0.233	0.051	-0.252	-0.358	-0.296	0.020	0.000	-0.001	0.001	0.001	-0.002	0.003	0.003	0.002	0.008	0.01	0.042	0.042
20	1.231	0.233	0.051	-0.252	-0.358	-0.295	0.020	0.000	-0.001	0.001	0.001	-0.002	0.002	0.002	0.002	0.008	0.01	0.043	0.043
21	1.228	0.231	0.051	-0.252	-0.358	-0.295	0.019	0.001	-0.002	0.001	0.000	-0.002	0.002	0.002	0.002	0.008	0.01	0.043	0.043
22	1.231	0.236	0.040	-0.249	-0.353	-0.295	0.021	0.000	-0.000	0.001	0.001	-0.001	0.000	0.000	0.000	0.008	0.01	0.042	0.042
23	1.230	0.238	0.040	-0.249	-0.353	-0.294	0.021	0.000	-0.001	0.002	0.001	-0.001	0.003	0.003	0.003	0.008	0.01	0.042	0.042
24	1.231	0.241	0.040	-0.249	-0.349	-0.290	0.020	0.000	-0.002	0.002	0.001	0.000	0.002	0.002	0.002	0.008	0.01	0.043	0.043
25	1.230	0.245	0.041	-0.246	-0.376	-0.283	0.021	0.000	-0.002	0.002	0.001	0.001	-0.002	0.003	0.002	0.009	0.01	0.042	0.042
26	1.230	0.252	0.033	-0.241	-0.384	-0.277	0.020	0.001	-0.001	0.001	0.000	-0.001	0.001	0.001	0.002	0.009	0.01	0.042	0.042
27	1.231	0.257	0.033	-0.241	-0.384	-0.279	0.020	0.001	-0.001	0.001	0.000	-0.001	0.001	0.001	0.002	0.009	0.01	0.042	0.042
28	1.231	0.263	0.022	-0.236	-0.395	-0.284	0.020	0.000	-0.004	-0.002	0.001	-0.003	0.003	0.003	0.003	0.009	0.01	0.042	0.042
29	1.230	0.270	0.021	-0.232	-0.398	-0.287	0.020	0.000	-0.004	-0.003	0.001	-0.003	0.003	0.003	0.003	0.009	0.01	0.042	0.042
30	1.232	0.277	0.015	-0.228	-0.400	-0.289	0.021	0.000	-0.003	-0.002	0.001	-0.002	0.003	0.002	0.002	0.009	0.01	0.041	0.041
31	1.232	0.286	0.001	-0.221	-0.398	-0.287	0.020	0.000	-0.002	0.002	0.001	-0.001	0.002	0.003	0.002	0.009	0.01	0.039	0.039
32	1.231	0.291	0.003	-0.219	-0.403	-0.287	0.020	0.000	-0.004	-0.002	0.001	-0.003	0.003	0.002	0.002	0.009	0.01	0.040	0.040
33	1.229	0.296	0.003	-0.215	-0.403	-0.281	0.021	0.000	-0.004	-0.002	0.001	-0.003	0.003	0.003	0.003	0.009	0.01	0.039	0.039
34	1.232	0.303	0.010	-0.209	-0.401	-0.269	0.023	0.000	-0.002	-0.000	0.001	-0.000	0.000	0.000	0.002	0.009	0.01	0.037	0.037
35	1.230	0.308	0.016	-0.203	-0.408	-0.243	0.022	0.002	-0.001	0.001	0.002	0.001	0.000	0.001	0.002	0.009	0.01	0.036	0.036
36	1.231	0.313	0.022	-0.197	-0.401	-0.205	0.023	0.003	-0.000	0.001	0.003	0.002	0.001	0.002	0.003	0.009	0.01	0.034	0.034
37	1.234	0.314	0.025	-0.197	-0.401	-0.193	0.023	0.003	-0.000	0.002	0.003	0.001	0.001	0.002	0.003	0.009	0.01	0.034	0.034

[illegible]



DATE 7-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REAG-6 PT P Q VI VT DATE AEDC PROPULSION WIND TUNNEL  
TC-532 225 0.928 3.005 1452.5 832.8 503.1 978.4 82.5 2-17-78 TRANSONIC 4T

ALFA CONFIG SURVEY 200 PHAR 2051.4 X Y Z  
0.00 11 5.00 2051.4 11.218 0.000 -7.297

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.210	0.380	0.080	-0.151	-0.377	-0.158	0.007	0.003	0.005	0.008	0.010	0.008	0.008	0.008	0.011	0.006	0.004	0.003	0.023
2	-174.9	1.213	0.377	0.079	-0.151	-0.374	-0.202	0.008	0.001	0.004	0.007	0.008	0.006	0.006	0.008	0.008	0.004	0.002	0.003	0.027
3	-164.9	1.229	0.369	0.072	-0.155	-0.381	-0.227	0.008	0.002	0.001	0.003	0.006	0.003	0.003	0.003	0.003	0.003	0.001	0.001	0.030
4	-155.0	1.211	0.362	0.066	-0.160	-0.385	-0.239	0.010	0.003	0.000	0.002	0.004	0.001	0.002	0.002	0.003	0.001	0.001	0.001	0.031
5	-144.9	1.210	0.348	0.055	-0.170	-0.391	-0.254	0.009	0.007	0.004	0.002	0.003	0.003	0.002	0.002	0.000	0.001	0.001	0.001	0.035
6	-135.1	1.213	0.334	0.042	-0.182	-0.394	-0.288	0.009	0.011	0.003	0.002	0.003	0.003	0.002	0.002	0.003	0.001	0.001	0.001	0.040
7	-125.0	1.213	0.313	0.024	-0.196	-0.406	-0.283	0.009	0.015	0.011	0.003	0.003	0.003	0.002	0.002	0.003	0.001	0.001	0.001	0.046
8	-115.1	1.211	0.293	0.006	-0.212	-0.410	-0.293	0.009	0.018	0.014	0.015	0.015	0.015	0.014	0.013	0.013	0.013	0.013	0.013	0.050
9	-105.0	1.213	0.276	0.010	-0.228	-0.408	-0.303	0.010	0.018	0.017	0.015	0.015	0.017	0.016	0.015	0.015	0.015	0.015	0.015	0.052
10	-95.0	1.212	0.258	0.010	-0.245	-0.401	-0.310	0.010	0.018	0.017	0.015	0.015	0.017	0.016	0.016	0.016	0.016	0.016	0.016	0.055
11	-85.0	1.213	0.258	0.025	-0.233	-0.401	-0.310	0.010	0.018	0.017	0.015	0.015	0.017	0.016	0.016	0.016	0.016	0.016	0.016	0.056
12	-75.0	1.210	0.239	0.044	-0.252	-0.392	-0.317	0.010	0.018	0.017	0.015	0.015	0.017	0.016	0.016	0.016	0.016	0.016	0.016	0.058
13	-65.0	1.211	0.227	0.053	-0.258	-0.381	-0.316	0.012	0.015	0.015	0.013	0.013	0.014	0.013	0.013	0.013	0.013	0.013	0.013	0.053
14	-54.9	1.231	0.211	0.067	-0.268	-0.378	-0.317	0.022	0.014	0.014	0.011	0.011	0.013	0.011	0.012	0.011	0.011	0.011	0.011	0.054
15	-45.1	1.229	0.200	0.076	-0.278	-0.374	-0.314	0.021	0.011	0.011	0.010	0.008	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.053
16	-35.1	1.227	0.188	0.087	-0.280	-0.368	-0.310	0.022	0.008	0.008	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.050
17	-25.1	1.231	0.193	0.093	-0.283	-0.359	-0.307	0.035	0.000	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.049
18	-15.1	1.231	0.178	0.097	-0.285	-0.354	-0.304	0.036	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
19	-5.0	1.230	0.178	0.100	-0.286	-0.350	-0.299	0.037	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
20	5.0	1.228	0.173	0.103	-0.288	-0.349	-0.295	0.047	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
21	15.0	1.235	0.173	0.103	-0.287	-0.349	-0.295	0.047	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
22	25.0	1.236	0.178	0.101	-0.286	-0.349	-0.305	0.048	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
23	35.0	1.228	0.181	0.098	-0.286	-0.351	-0.318	0.046	0.002	0.000	0.002	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.050
24	45.0	1.223	0.187	0.092	-0.284	-0.356	-0.321	0.047	0.002	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.051
25	54.9	1.234	0.198	0.085	-0.280	-0.369	-0.327	0.034	0.008	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.052
26	64.9	1.225	0.208	0.077	-0.276	-0.377	-0.337	0.036	0.011	0.011	0.010	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.052
27	74.9	1.227	0.226	0.063	-0.265	-0.392	-0.327	0.027	0.014	0.013	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.054
28	84.9	1.226	0.245	0.047	-0.255	-0.404	-0.322	0.018	0.017	0.015	0.013	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.054
29	95.0	1.227	0.259	0.034	-0.243	-0.413	-0.319	0.019	0.019	0.017	0.015	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.054
30	105.0	1.229	0.280	0.017	-0.233	-0.415	-0.311	0.020	0.018	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.053
31	115.0	1.231	0.302	0.002	-0.212	-0.415	-0.301	0.019	0.018	0.015	0.013	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.050
32	125.0	1.228	0.317	0.017	-0.205	-0.410	-0.292	0.009	0.015	0.013	0.011	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.047
33	134.9	1.232	0.336	0.033	-0.193	-0.405	-0.281	0.009	0.017	0.015	0.013	0.011	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.043
34	144.9	1.238	0.350	0.047	-0.179	-0.397	-0.267	0.010	0.018	0.016	0.013	0.011	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.038
35	154.9	1.231	0.362	0.058	-0.169	-0.391	-0.255	0.010	0.018	0.016	0.013	0.011	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.033
36	164.9	1.231	0.372	0.069	-0.160	-0.383	-0.242	0.011	0.018	0.016	0.013	0.011	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.029
37	174.9	1.232	0.381	0.084	-0.149	-0.376	-0.175	0.011	0.022	0.005	0.009	0.011	0.008	0.007	0.006	0.006	0.006	0.006	0.006	0.023

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CMX	1.3599	2.0455	1.9691	-0.5969	1.4011	-0.5203	-0.0687	0.0230	0.0642
CYX	0.1071	0.2777	0.2969	0.0234	0.3091	-0.2314	-0.0333	-0.0293	-0.0060
CAX	2.7645	-0.2499	-2.0325	-1.2688	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.0775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CMX	0.0824	0.0893	0.0821	0.1103	0.1418	0.1472	0.1767	0.2572	0.3144
CYX	-0.0145	-0.0258	-0.0057	0.0026	-0.0070	0.0057	0.0036	0.0187	0.0326
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0.221 CY 0.023 CA 0.036 CLM 0.462 CLW 0.068

DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELLION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT

TC-532 211 0.948 2.998 1432.4 802.9 505.4

VI 964.8 TT 80.7

DATE 2-17-78 AEC PROPELLION WIND TUNNEL

TRANSONIC 47

ALFA

CONFIG

11

0.000

SURVEY

200

PHAR

2050.5

X

11.216

Y

0.000

Z

-2.297

PRT	OPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
15	-174.8	1.241	0.286	0.003	-0.208	-0.412	-0.289	0.044	0.031	0.010	0.005	0.004	0.000	0.000	-0.001	0.000	-0.004	-0.007	-0.011	-0.000
16	-165.0	1.244	0.287	0.003	-0.209	-0.413	-0.290	0.044	0.032	0.010	0.005	0.004	0.001	0.001	-0.001	0.000	-0.003	-0.006	-0.010	-0.000
17	-155.0	1.243	0.286	0.003	-0.210	-0.414	-0.292	0.044	0.031	0.010	0.005	0.003	0.001	0.001	-0.001	0.000	-0.003	-0.005	-0.008	-0.012
18	-144.9	1.242	0.286	0.003	-0.210	-0.414	-0.292	0.044	0.031	0.010	0.005	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.008	-0.012
19	-135.1	1.243	0.287	0.003	-0.209	-0.413	-0.291	0.036	0.032	0.010	0.005	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
20	-125.0	1.243	0.288	0.004	-0.209	-0.413	-0.291	0.035	0.031	0.010	0.005	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.008	-0.011
21	-115.1	1.244	0.289	0.004	-0.208	-0.414	-0.290	0.036	0.031	0.010	0.005	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
22	-105.0	1.241	0.288	0.004	-0.209	-0.413	-0.291	0.035	0.030	0.010	0.005	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
23	-94.9	1.240	0.288	0.003	-0.207	-0.411	-0.289	0.037	0.029	0.009	0.004	0.003	0.000	-0.001	0.000	-0.002	-0.003	-0.005	-0.007	-0.011
24	-85.0	1.244	0.290	0.003	-0.207	-0.414	-0.289	0.037	0.030	0.010	0.005	0.003	0.000	-0.001	0.000	-0.002	-0.003	-0.005	-0.007	-0.011
25	-74.9	1.239	0.288	0.004	-0.208	-0.414	-0.289	0.036	0.027	0.008	0.003	0.002	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
26	-65.0	1.241	0.291	0.004	-0.206	-0.412	-0.287	0.037	0.030	0.010	0.005	0.004	0.001	0.001	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
27	-54.9	1.244	0.292	0.003	-0.205	-0.412	-0.288	0.039	0.030	0.010	0.005	0.004	0.001	0.001	0.000	0.000	-0.003	-0.005	-0.007	-0.011
28	-45.1	1.246	0.292	0.008	-0.203	-0.412	-0.290	0.025	0.035	0.012	0.006	0.005	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
29	-35.1	1.243	0.292	0.008	-0.204	-0.412	-0.291	0.013	0.036	0.012	0.006	0.004	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
30	-25.0	1.243	0.292	0.007	-0.204	-0.412	-0.291	0.015	0.036	0.012	0.006	0.004	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
31	-15.1	1.242	0.292	0.007	-0.203	-0.412	-0.291	0.015	0.036	0.012	0.006	0.004	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
32	-5.0	1.243	0.291	0.006	-0.204	-0.412	-0.292	0.017	0.038	0.013	0.006	0.004	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
33	5.0	1.243	0.291	0.007	-0.203	-0.411	-0.292	0.017	0.038	0.013	0.006	0.004	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
34	15.0	1.243	0.291	0.005	-0.204	-0.412	-0.293	0.008	0.037	0.012	0.006	0.004	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
35	25.0	1.245	0.291	0.006	-0.204	-0.412	-0.294	0.009	0.038	0.013	0.006	0.004	0.001	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
36	35.0	1.245	0.290	0.005	-0.206	-0.413	-0.294	0.008	0.039	0.013	0.007	0.004	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
37	45.0	1.243	0.290	0.004	-0.205	-0.412	-0.294	0.010	0.039	0.013	0.006	0.004	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007	-0.011
38	54.9	1.240	0.288	0.003	-0.206	-0.412	-0.294	0.010	0.037	0.013	0.006	0.003	0.001	0.000	-0.001	0.000	-0.003	-0.005	-0.007	-0.011
39	64.9	1.246	0.290	0.005	-0.205	-0.412	-0.293	0.012	0.040	0.014	0.007	0.005	0.002	0.001	0.001	0.001	0.000	-0.003	-0.005	-0.007
40	74.9	1.246	0.290	0.006	-0.205	-0.412	-0.294	0.012	0.041	0.015	0.007	0.005	0.001	0.001	0.001	0.001	0.000	-0.003	-0.005	-0.007
41	84.9	1.246	0.289	0.003	-0.206	-0.413	-0.295	0.000	0.041	0.015	0.007	0.005	0.001	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
42	95.0	1.245	0.289	0.003	-0.206	-0.413	-0.295	0.000	0.041	0.014	0.007	0.005	0.000	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
43	105.0	1.245	0.288	0.003	-0.206	-0.413	-0.296	0.001	0.041	0.014	0.007	0.005	0.000	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
44	114.9	1.244	0.288	0.003	-0.205	-0.412	-0.295	0.002	0.042	0.015	0.007	0.006	0.001	0.001	0.001	0.001	0.000	-0.003	-0.005	-0.007
45	125.0	1.244	0.288	0.003	-0.206	-0.413	-0.295	0.002	0.041	0.014	0.007	0.005	0.001	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
46	134.9	1.244	0.288	0.003	-0.206	-0.413	-0.294	0.003	0.041	0.015	0.007	0.005	0.001	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
47	144.9	1.247	0.288	0.003	-0.209	-0.415	-0.297	0.002	0.041	0.013	0.006	0.004	0.000	0.001	0.001	0.001	0.000	-0.003	-0.005	-0.007
48	154.9	1.244	0.287	0.003	-0.208	-0.414	-0.296	0.002	0.040	0.014	0.006	0.004	0.000	0.001	0.001	0.001	0.000	-0.003	-0.005	-0.007
49	164.9	1.244	0.288	0.003	-0.207	-0.414	-0.295	0.002	0.040	0.014	0.006	0.004	0.000	0.000	0.000	0.000	0.000	-0.003	-0.005	-0.007
50	174.9	1.244	0.289	0.003	-0.206	-0.412	-0.293	0.004	0.040	0.014	0.007	0.005	0.001	0.001	0.001	0.001	0.001	0.000	-0.003	-0.005

ORIFICE

X5 FT

0.0278

0.0555

-0.0503

0.0272

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X5 FT

0.2775

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DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELLION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PT MACH 2.997 1432.1 800.8 506.4 997.1 81.1

DATE 2-17-78 AEDC PROPELLION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 200

ALFA 2.01

PRIM 2050.6

Y 0.000

Z -2.297

PWT	DPMI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.246	0.330	0.039	-0.181	-0.395	-0.283	-0.004	0.038	0.016	0.009	0.008	0.004	0.003	0.003	0.004	0.001	0.004	0.000	0.004
3	-164.9	1.245	0.332	0.040	-0.178	-0.393	-0.281	-0.004	0.040	0.016	0.009	0.008	0.004	0.002	0.002	0.002	0.001	0.004	0.000	0.004
4	-155.0	1.246	0.329	0.040	-0.179	-0.396	-0.281	-0.018	0.038	0.014	0.007	0.005	0.001	0.001	0.000	0.000	0.003	0.004	0.000	0.004
5	-144.9	1.245	0.328	0.036	-0.180	-0.397	-0.290	-0.017	0.038	0.014	0.007	0.005	0.000	0.000	0.001	0.001	0.004	0.004	0.000	0.007
6	-135.1	1.246	0.322	0.031	-0.181	-0.399	-0.294	-0.016	0.039	0.014	0.007	0.005	0.000	0.000	0.001	0.001	0.004	0.004	0.000	0.008
7	-125.0	1.246	0.317	0.027	-0.187	-0.401	-0.294	-0.002	0.038	0.014	0.007	0.005	0.000	0.000	0.001	0.001	0.004	0.004	0.000	0.007
8	-115.1	1.244	0.310	0.021	-0.194	-0.404	-0.295	0.007	0.039	0.012	0.004	0.003	0.001	0.001	0.002	0.002	0.004	0.004	0.000	0.009
9	-105.8	1.242	0.303	0.015	-0.198	-0.406	-0.295	0.016	0.038	0.012	0.005	0.003	0.001	0.001	0.002	0.001	0.004	0.004	0.000	0.013
10	-95.0	1.241	0.294	0.009	-0.204	-0.410	-0.298	0.015	0.037	0.011	0.003	0.002	0.001	0.001	0.002	0.001	0.004	0.004	0.000	0.014
11	-85.0	1.244	0.289	0.002	-0.209	-0.413	-0.299	0.015	0.038	0.011	0.003	0.001	0.001	0.001	0.002	0.001	0.004	0.004	0.000	0.015
12	-74.9	1.242	0.280	0.005	-0.214	-0.415	-0.303	0.026	0.039	0.011	0.004	0.001	0.001	0.001	0.002	0.001	0.004	0.004	0.000	0.016
13	-65.0	1.242	0.274	0.012	-0.217	-0.415	-0.305	0.028	0.039	0.011	0.004	0.002	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
14	-54.9	1.242	0.269	0.016	-0.221	-0.417	-0.309	0.027	0.040	0.012	0.004	0.002	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
15	-45.1	1.243	0.264	0.021	-0.225	-0.417	-0.311	0.028	0.041	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
16	-35.1	1.243	0.259	0.026	-0.228	-0.417	-0.313	0.029	0.041	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
17	-25.1	1.244	0.255	0.027	-0.230	-0.418	-0.315	0.029	0.041	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
18	-15.1	1.244	0.252	0.032	-0.233	-0.418	-0.317	0.028	0.042	0.013	0.006	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
19	-5.0	1.245	0.251	0.034	-0.234	-0.416	-0.316	0.030	0.044	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
20	5.0	1.245	0.250	0.035	-0.235	-0.416	-0.316	0.030	0.044	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
21	15.0	1.241	0.249	0.035	-0.235	-0.416	-0.317	0.030	0.044	0.013	0.005	0.002	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
22	24.9	1.242	0.252	0.033	-0.233	-0.415	-0.315	0.024	0.044	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
23	35.0	1.244	0.254	0.031	-0.231	-0.418	-0.315	0.024	0.044	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
24	45.0	1.243	0.256	0.029	-0.232	-0.420	-0.314	0.023	0.041	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
25	54.9	1.241	0.260	0.025	-0.228	-0.421	-0.310	0.025	0.040	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
26	64.9	1.243	0.266	0.021	-0.225	-0.422	-0.309	0.026	0.038	0.014	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
27	74.9	1.243	0.272	0.016	-0.222	-0.421	-0.306	0.026	0.038	0.012	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
28	84.9	1.242	0.280	0.010	-0.218	-0.418	-0.306	0.027	0.039	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
29	95.0	1.246	0.288	0.003	-0.213	-0.416	-0.304	0.027	0.040	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
30	105.0	1.243	0.296	0.008	-0.207	-0.412	-0.301	0.015	0.040	0.013	0.005	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
31	114.9	1.243	0.302	0.008	-0.204	-0.410	-0.299	0.017	0.040	0.013	0.006	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
32	125.0	1.246	0.309	0.015	-0.199	-0.407	-0.298	0.005	0.040	0.015	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
33	134.9	1.244	0.314	0.020	-0.195	-0.404	-0.298	0.005	0.040	0.014	0.006	0.004	0.002	0.001	0.002	0.001	0.004	0.004	0.000	0.015
34	144.9	1.245	0.321	0.026	-0.190	-0.401	-0.298	0.000	0.040	0.015	0.007	0.005	0.001	0.002	0.001	0.002	0.001	0.004	0.004	0.000
35	154.9	1.247	0.326	0.032	-0.187	-0.398	-0.294	0.009	0.040	0.015	0.009	0.006	0.001	0.002	0.001	0.002	0.001	0.004	0.004	0.000
36	164.9	1.246	0.329	0.035	-0.184	-0.398	-0.292	0.009	0.038	0.015	0.008	0.006	0.001	0.002	0.001	0.002	0.001	0.004	0.004	0.000
37	174.9	1.246	0.331	0.041	-0.180	-0.394	-0.288	0.008	0.038	0.015	0.009	0.006	0.003	0.002	0.001	0.002	0.001	0.004	0.004	0.000

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CMX	0.5362	0.4275	0.7797	0.3658	0.4492	-0.6118	-0.0655	0.0244	0.0426
CYX	0.0553	0.1415	0.1534	0.0926	0.0909	-0.0922	-0.0153	-0.0250	-0.0118
CAX	2.9862	0.0111	-1.8991	-1.3571	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CMX	0.0440	0.0418	0.0359	0.0368	0.0528	0.0559	0.0643	0.0987	0.1368
CYX	-0.0147	-0.0166	-0.0129	-0.0102	-0.0129	-0.0062	-0.0072	-0.0030	0.0105
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0.090 CV 0.010 CA 0.093 CLM 0.199 CLW 0.042

DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELLION WIND TUNNEL

ARNOOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH RE10-6 PT

TC-532 213 0.950 1434.2 902.5 506.8

VI 964.8 TT 81.4

DATE 2-17-78

AEDC PROPELLION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY

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DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH ARLIO-6 PT P 455.2 536.8 1084.2 81.7

TC-532 215 1.050 2.999 1396.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 200  
0.00 11 2050.6 11.218 0.000 -2.297

PRT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
4	-174.8	1.304	0.386	0.117	-0.083	-0.280	-0.231	-0.150	-0.090	-0.054	-0.035	-0.018	-0.010	-0.009	-0.009	-0.006	-0.004	0.001	0.008	0.002
7	-164.9	1.305	0.385	0.115	-0.087	-0.281	-0.231	-0.149	-0.089	-0.053	-0.036	-0.019	-0.010	-0.007	-0.008	-0.007	-0.004	0.001	0.007	0.002
8	-153.0	1.304	0.385	0.115	-0.087	-0.281	-0.231	-0.149	-0.089	-0.053	-0.036	-0.019	-0.010	-0.007	-0.008	-0.007	-0.004	0.001	0.007	0.002
9	-144.9	1.304	0.387	0.117	-0.085	-0.279	-0.229	-0.149	-0.087	-0.053	-0.035	-0.019	-0.010	-0.006	-0.008	-0.006	-0.003	0.000	0.007	0.003
10	-135.1	1.305	0.387	0.117	-0.085	-0.280	-0.231	-0.149	-0.089	-0.054	-0.035	-0.020	-0.011	-0.008	-0.009	-0.007	-0.005	0.001	0.006	0.002
11	-125.0	1.303	0.386	0.115	-0.088	-0.281	-0.232	-0.149	-0.090	-0.055	-0.036	-0.022	-0.011	-0.009	-0.011	-0.010	-0.007	0.003	0.005	0.000
12	-115.1	1.304	0.388	0.117	-0.085	-0.279	-0.230	-0.149	-0.088	-0.053	-0.035	-0.020	-0.011	-0.009	-0.009	-0.008	-0.005	0.000	0.008	0.003
13	-105.0	1.304	0.388	0.118	-0.085	-0.280	-0.231	-0.149	-0.089	-0.054	-0.036	-0.020	-0.011	-0.009	-0.010	-0.008	-0.005	0.001	0.008	0.004
14	-95.0	1.304	0.388	0.118	-0.085	-0.280	-0.231	-0.149	-0.089	-0.054	-0.036	-0.020	-0.011	-0.010	-0.010	-0.008	-0.005	0.000	0.003	0.004
15	-85.0	1.305	0.389	0.118	-0.086	-0.280	-0.232	-0.151	-0.089	-0.054	-0.036	-0.021	-0.011	-0.010	-0.010	-0.009	-0.006	0.000	0.008	0.001
16	-74.9	1.302	0.388	0.118	-0.085	-0.279	-0.231	-0.151	-0.089	-0.054	-0.036	-0.022	-0.011	-0.011	-0.011	-0.010	-0.007	0.000	0.007	0.002
17	-65.0	1.304	0.388	0.117	-0.086	-0.280	-0.232	-0.151	-0.090	-0.055	-0.037	-0.022	-0.012	-0.011	-0.011	-0.009	-0.007	0.001	0.008	0.001
18	-54.9	1.305	0.390	0.119	-0.085	-0.280	-0.232	-0.150	-0.090	-0.054	-0.036	-0.021	-0.012	-0.011	-0.011	-0.009	-0.006	0.001	0.008	0.002
19	-45.1	1.303	0.389	0.116	-0.084	-0.278	-0.231	-0.149	-0.089	-0.054	-0.035	-0.021	-0.012	-0.010	-0.010	-0.009	-0.006	0.002	0.008	0.001
20	-35.1	1.306	0.390	0.119	-0.084	-0.278	-0.230	-0.149	-0.089	-0.053	-0.034	-0.020	-0.011	-0.010	-0.010	-0.008	-0.005	0.003	0.010	0.002
21	-25.1	1.306	0.390	0.120	-0.083	-0.278	-0.230	-0.149	-0.089	-0.053	-0.034	-0.020	-0.011	-0.010	-0.010	-0.008	-0.005	0.002	0.009	0.000
22	-15.0	1.305	0.389	0.118	-0.085	-0.280	-0.232	-0.149	-0.091	-0.055	-0.035	-0.021	-0.012	-0.011	-0.012	-0.009	-0.003	0.001	0.007	0.002
23	-5.0	1.304	0.388	0.117	-0.085	-0.279	-0.231	-0.149	-0.090	-0.054	-0.034	-0.020	-0.012	-0.010	-0.010	-0.008	-0.005	0.001	0.007	0.001
24	5.0	1.304	0.388	0.117	-0.085	-0.279	-0.231	-0.149	-0.091	-0.055	-0.034	-0.020	-0.012	-0.011	-0.011	-0.009	-0.006	0.001	0.007	0.002
25	15.0	1.303	0.387	0.116	-0.084	-0.278	-0.230	-0.149	-0.090	-0.054	-0.034	-0.019	-0.011	-0.009	-0.009	-0.007	-0.003	0.002	0.008	0.001
26	25.0	1.305	0.387	0.116	-0.084	-0.278	-0.230	-0.149	-0.092	-0.054	-0.034	-0.019	-0.011	-0.010	-0.012	-0.009	-0.006	0.000	0.008	0.003
27	35.0	1.304	0.386	0.115	-0.086	-0.280	-0.232	-0.150	-0.092	-0.056	-0.035	-0.019	-0.012	-0.011	-0.011	-0.009	-0.006	0.000	0.008	0.003
28	45.0	1.306	0.387	0.116	-0.086	-0.279	-0.232	-0.151	-0.091	-0.055	-0.035	-0.019	-0.012	-0.011	-0.010	-0.009	-0.006	0.004	0.008	0.002
29	54.9	1.304	0.386	0.115	-0.086	-0.280	-0.232	-0.151	-0.092	-0.056	-0.036	-0.019	-0.012	-0.011	-0.010	-0.009	-0.006	0.004	0.008	0.002
30	64.9	1.303	0.385	0.114	-0.086	-0.280	-0.232	-0.150	-0.092	-0.055	-0.036	-0.019	-0.012	-0.010	-0.010	-0.008	-0.005	0.003	0.001	0.007
31	74.9	1.304	0.386	0.115	-0.086	-0.280	-0.232	-0.150	-0.092	-0.055	-0.035	-0.018	-0.012	-0.008	-0.009	-0.005	-0.003	0.000	0.006	0.002
32	84.9	1.307	0.386	0.114	-0.087	-0.280	-0.232	-0.151	-0.092	-0.056	-0.036	-0.018	-0.012	-0.009	-0.009	-0.005	-0.003	0.000	0.005	0.002
33	95.0	1.303	0.384	0.113	-0.087	-0.280	-0.232	-0.151	-0.092	-0.056	-0.037	-0.019	-0.012	-0.009	-0.009	-0.005	-0.004	0.000	0.004	0.003
34	105.0	1.303	0.384	0.114	-0.086	-0.279	-0.231	-0.149	-0.090	-0.055	-0.036	-0.017	-0.010	-0.007	-0.008	-0.004	-0.002	0.000	0.006	0.001
35	115.0	1.306	0.385	0.114	-0.086	-0.279	-0.231	-0.149	-0.091	-0.055	-0.036	-0.018	-0.011	-0.008	-0.009	-0.004	-0.003	0.001	0.005	0.001
36	125.0	1.305	0.384	0.112	-0.087	-0.281	-0.233	-0.149	-0.092	-0.056	-0.037	-0.019	-0.012	-0.008	-0.009	-0.004	-0.003	0.002	0.004	0.003
37	134.9	1.303	0.384	0.112	-0.087	-0.281	-0.233	-0.149	-0.091	-0.056	-0.037	-0.019	-0.012	-0.007	-0.008	-0.004	-0.003	0.002	0.005	0.001
38	144.9	1.304	0.383	0.112	-0.088	-0.282	-0.233	-0.149	-0.092	-0.056	-0.038	-0.019	-0.011	-0.007	-0.008	-0.005	-0.004	0.001	0.006	0.002
39	154.9	1.306	0.385	0.113	-0.088	-0.281	-0.232	-0.149	-0.090	-0.056	-0.037	-0.018	-0.010	-0.007	-0.008	-0.005	-0.004	0.001	0.006	0.000
40	164.9	1.305	0.384	0.113	-0.088	-0.281	-0.232	-0.149	-0.091	-0.056	-0.037	-0.019	-0.011	-0.007	-0.008	-0.006	-0.004	0.002	0.006	0.001
41	174.9	1.302	0.383	0.112	-0.089	-0.282	-0.232	-0.149	-0.090	-0.056	-0.037	-0.019	-0.011	-0.008	-0.009	-0.006	-0.005	0.002	0.006	0.000

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0559	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.0263	-0.0411	-0.0349	-0.0223	0.0006	0.0384	0.0137	-0.0088	-0.0276
CYL	0.0248	0.0520	0.0217	0.0078	0.0150	0.0602	0.0498	0.0319	0.0105
CAX	3.9925	1.4166	-0.7809	-0.9270	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.0275	0.0553	0.0830	0.1107	0.1385	0.1663	0.1940	0.2218	0.4995
CXK	0.0118	0.0859	0.0509	0.0074	0.0367	0.0186	-0.0354	-0.0259	0.0298
CYL	-0.0436	-0.0239	-0.0236	-0.0468	-0.0855	-0.0428	0.0203	0.0413	0.0766
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	9.002	0.006	0.166	-0.5917	0.008	0.008	0.008	0.008	0.008

DATE 7-MAR-78 PROJECT NO P41C-NDC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDOLF AIR FORCE STATION, TENNESSEE

TEST PART MACH 2.996 1395.5 894.0 536.5 1044.8 91.7

TC-532 216 1.031 2.996 1395.5 894.0 536.5 1044.8 91.7

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 200

ALFA 2.02

PRAM 2050.8

Y 0.000

Z -2.297

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.306	0.422	0.143	-0.048	-0.247	-0.225	-0.144	-0.084	-0.054	-0.035	-0.020	-0.009	-0.004	-0.002	-0.002	0.002	0.010	0.005	0.004
3	-165.0	1.308	0.426	0.145	-0.041	-0.244	-0.223	-0.145	-0.084	-0.056	-0.035	-0.022	-0.010	-0.005	-0.003	-0.003	0.000	0.009	0.004	0.004
4	-155.0	1.309	0.426	0.145	-0.059	-0.242	-0.223	-0.145	-0.084	-0.056	-0.035	-0.021	-0.010	-0.005	-0.003	-0.003	0.001	0.009	0.004	0.004
5	-144.9	1.303	0.431	0.145	-0.041	-0.243	-0.225	-0.144	-0.084	-0.056	-0.035	-0.021	-0.011	-0.005	-0.007	-0.004	0.000	0.009	0.005	0.005
6	-135.1	1.304	0.417	0.141	-0.045	-0.246	-0.228	-0.144	-0.092	-0.057	-0.035	-0.022	-0.013	-0.008	-0.008	-0.005	0.001	0.009	0.005	0.005
7	-125.0	1.307	0.414	0.133	-0.048	-0.247	-0.230	-0.133	-0.093	-0.055	-0.033	-0.021	-0.013	-0.008	-0.008	-0.005	0.000	0.009	0.005	0.005
8	-115.1	1.306	0.406	0.130	-0.075	-0.243	-0.234	-0.135	-0.093	-0.057	-0.034	-0.024	-0.018	-0.011	-0.010	-0.008	0.004	0.004	0.004	0.004
9	-105.0	1.301	0.400	0.126	-0.077	-0.243	-0.234	-0.133	-0.093	-0.056	-0.032	-0.024	-0.017	-0.011	-0.011	-0.008	0.003	0.004	0.004	0.004
10	-95.0	1.307	0.392	0.111	-0.084	-0.249	-0.236	-0.133	-0.093	-0.057	-0.032	-0.023	-0.018	-0.011	-0.011	-0.009	0.003	0.005	0.005	0.005
11	-85.0	1.303	0.386	0.111	-0.087	-0.246	-0.235	-0.133	-0.093	-0.056	-0.030	-0.022	-0.018	-0.011	-0.011	-0.007	0.001	0.007	0.002	0.002
12	-75.0	1.305	0.381	0.109	-0.091	-0.243	-0.235	-0.133	-0.093	-0.055	-0.028	-0.022	-0.018	-0.011	-0.011	-0.007	0.001	0.007	0.002	0.002
13	-65.0	1.305	0.375	0.102	-0.096	-0.247	-0.236	-0.133	-0.093	-0.054	-0.027	-0.023	-0.019	-0.011	-0.012	-0.009	0.002	0.006	0.004	0.004
14	-54.9	1.303	0.367	0.096	-0.100	-0.249	-0.236	-0.133	-0.093	-0.053	-0.026	-0.023	-0.020	-0.013	-0.013	-0.010	0.004	0.004	0.004	0.004
15	-45.0	1.303	0.361	0.092	-0.104	-0.247	-0.235	-0.133	-0.093	-0.052	-0.025	-0.022	-0.020	-0.013	-0.013	-0.011	0.004	0.004	0.004	0.004
16	-35.1	1.305	0.359	0.088	-0.108	-0.243	-0.234	-0.133	-0.093	-0.049	-0.024	-0.021	-0.017	-0.011	-0.012	-0.010	0.007	0.004	0.004	0.004
17	-25.1	1.304	0.355	0.084	-0.108	-0.245	-0.234	-0.133	-0.093	-0.049	-0.024	-0.021	-0.017	-0.011	-0.011	-0.010	0.007	0.004	0.004	0.004
18	-15.0	1.302	0.351	0.082	-0.110	-0.245	-0.233	-0.133	-0.093	-0.047	-0.024	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
19	-5.1	1.303	0.348	0.078	-0.112	-0.247	-0.233	-0.133	-0.093	-0.046	-0.024	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
20	5.0	1.304	0.349	0.079	-0.111	-0.247	-0.232	-0.133	-0.093	-0.046	-0.025	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
21	15.0	1.305	0.350	0.079	-0.112	-0.246	-0.232	-0.133	-0.093	-0.046	-0.024	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
22	24.9	1.304	0.350	0.079	-0.112	-0.246	-0.232	-0.133	-0.093	-0.046	-0.024	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
23	35.0	1.304	0.353	0.081	-0.110	-0.245	-0.233	-0.133	-0.093	-0.046	-0.025	-0.021	-0.017	-0.011	-0.011	-0.008	0.006	0.004	0.004	0.004
24	45.0	1.303	0.356	0.084	-0.108	-0.243	-0.234	-0.133	-0.093	-0.048	-0.025	-0.020	-0.014	-0.009	-0.009	-0.005	0.001	0.004	0.004	0.004
25	54.9	1.303	0.359	0.087	-0.107	-0.244	-0.234	-0.133	-0.093	-0.051	-0.026	-0.021	-0.015	-0.011	-0.011	-0.008	0.002	0.004	0.004	0.004
26	64.9	1.303	0.364	0.092	-0.104	-0.242	-0.233	-0.133	-0.093	-0.052	-0.026	-0.022	-0.016	-0.009	-0.009	-0.005	0.002	0.004	0.004	0.004
27	74.9	1.302	0.369	0.096	-0.101	-0.240	-0.232	-0.133	-0.093	-0.053	-0.026	-0.023	-0.017	-0.011	-0.009	-0.005	0.004	0.004	0.004	0.004
28	84.9	1.301	0.375	0.101	-0.097	-0.237	-0.231	-0.133	-0.093	-0.054	-0.026	-0.024	-0.018	-0.011	-0.009	-0.005	0.004	0.004	0.004	0.004
29	95.0	1.300	0.382	0.105	-0.093	-0.234	-0.231	-0.133	-0.093	-0.054	-0.026	-0.024	-0.018	-0.011	-0.009	-0.005	0.004	0.004	0.004	0.004
30	105.0	1.304	0.390	0.112	-0.088	-0.231	-0.231	-0.133	-0.093	-0.054	-0.026	-0.024	-0.018	-0.011	-0.009	-0.005	0.004	0.004	0.004	0.004
31	115.0	1.305	0.397	0.118	-0.084	-0.228	-0.230	-0.133	-0.093	-0.055	-0.026	-0.023	-0.017	-0.011	-0.009	-0.005	0.004	0.004	0.004	0.004
32	125.0	1.304	0.403	0.124	-0.080	-0.226	-0.230	-0.133	-0.093	-0.056	-0.026	-0.023	-0.017	-0.011	-0.008	-0.005	0.004	0.004	0.004	0.004
33	134.9	1.301	0.408	0.128	-0.075	-0.222	-0.231	-0.133	-0.093	-0.057	-0.026	-0.022	-0.014	-0.009	-0.005	-0.004	0.002	0.004	0.004	0.004
34	144.9	1.306	0.416	0.136	-0.070	-0.219	-0.231	-0.133	-0.093	-0.056	-0.026	-0.022	-0.012	-0.009	-0.006	-0.004	0.002	0.004	0.004	0.004
35	154.9	1.308	0.419	0.138	-0.069	-0.218	-0.231	-0.133	-0.093	-0.058	-0.026	-0.022	-0.012	-0.009	-0.006	-0.004	0.002	0.004	0.004	0.004
36	164.9	1.305	0.422	0.144	-0.064	-0.215	-0.230	-0.133	-0.093	-0.057	-0.026	-0.022	-0.012	-0.009	-0.006	-0.004	0.002	0.004	0.004	0.004
37	174.9	1.308	0.426	0.147	-0.062	-0.214	-0.229	-0.133	-0.093	-0.057	-0.026	-0.022	-0.012	-0.009	-0.006	-0.004	0.002	0.004	0.004	0.004

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.5002	0.7560	0.7124	0.5313	0.1087	0.2563	-0.0600	-0.1523	-0.1871
CY	0.0720	0.1563	0.1469	0.1089	0.0514	0.0890	-0.0498	-0.0335	0.0038
CAX	3.9868	1.3603	-0.8031	-0.9312	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	-0.0308	0.0917	0.0692	0.0741	0.1039	0.0552	0.0075	0.0449	0.1216
CY	-0.0053	-0.0177	-0.0309	-0.0430	-0.0762	-0.0804	0.0211	0.0413	0.1007
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	0.092	0.017	0.164	0.214	0.037	0.037	0.037	0.037	0.037



DATE 7-MAR-78 PROJECT NO PAIC-MOC

ARG, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDT AIR FORCE STATION, TENNESSEE

TEST PART MACH RE110-6 PT

TC-332 217 1.031 3.000 1397.6 695.1 537.3 1084.3 81.8

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

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DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PLAN WACH REXIO-6 PT

TC-332 156 0.926 3.001 1453.3 835.5 501.1 976.5 82.9

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 201  
0.00 12

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.8	1.229	0.265	-0.018	-0.224	-0.325	-0.240	-0.039	-0.084	-0.088	-0.097	-0.091	-0.103	-0.120	-0.146	-0.120	-0.101	-0.087	-0.049	-0.038
8	-164.9	1.230	0.266	-0.018	-0.225	-0.326	-0.241	-0.039	-0.085	-0.089	-0.098	-0.092	-0.104	-0.121	-0.147	-0.121	-0.102	-0.088	-0.050	-0.039
9	-155.0	1.232	0.268	-0.018	-0.225	-0.325	-0.241	-0.037	-0.081	-0.086	-0.095	-0.089	-0.101	-0.117	-0.138	-0.110	-0.099	-0.066	-0.047	-0.037
10	-144.9	1.229	0.268	-0.017	-0.225	-0.319	-0.241	-0.028	-0.084	-0.089	-0.098	-0.091	-0.104	-0.120	-0.142	-0.110	-0.101	-0.070	-0.050	-0.038
11	-135.1	1.230	0.272	-0.014	-0.222	-0.344	-0.233	-0.038	-0.089	-0.089	-0.097	-0.090	-0.103	-0.121	-0.143	-0.110	-0.102	-0.088	-0.048	-0.037
12	-125.0	1.229	0.274	-0.012	-0.220	-0.347	-0.227	-0.048	-0.092	-0.092	-0.099	-0.091	-0.105	-0.122	-0.147	-0.110	-0.103	-0.088	-0.048	-0.038
13	-115.1	1.230	0.278	-0.007	-0.215	-0.355	-0.197	-0.060	-0.099	-0.095	-0.092	-0.094	-0.106	-0.125	-0.152	-0.110	-0.106	-0.067	-0.048	-0.038
14	-105.0	1.231	0.281	-0.004	-0.214	-0.357	-0.183	-0.060	-0.099	-0.095	-0.092	-0.094	-0.108	-0.125	-0.157	-0.110	-0.108	-0.068	-0.048	-0.038
15	-95.0	1.229	0.284	-0.002	-0.211	-0.351	-0.170	-0.071	-0.110	-0.104	-0.097	-0.098	-0.110	-0.131	-0.162	-0.110	-0.100	-0.067	-0.048	-0.038
16	-85.0	1.228	0.288	0.002	-0.207	-0.342	-0.163	-0.081	-0.121	-0.109	-0.100	-0.099	-0.113	-0.134	-0.171	-0.110	-0.100	-0.067	-0.048	-0.038
17	-74.9	1.228	0.293	0.008	-0.201	-0.327	-0.153	-0.094	-0.139	-0.113	-0.101	-0.098	-0.115	-0.135	-0.179	-0.110	-0.100	-0.067	-0.048	-0.038
18	-65.0	1.230	0.300	0.015	-0.191	-0.303	-0.141	-0.117	-0.143	-0.120	-0.104	-0.099	-0.117	-0.137	-0.192	-0.110	-0.100	-0.067	-0.048	-0.038
19	-54.9	1.230	0.303	0.019	-0.187	-0.283	-0.127	-0.131	-0.153	-0.127	-0.108	-0.099	-0.117	-0.137	-0.206	-0.110	-0.100	-0.067	-0.048	-0.038
20	-45.0	1.229	0.307	0.024	-0.184	-0.254	-0.108	-0.156	-0.188	-0.133	-0.111	-0.098	-0.121	-0.137	-0.220	-0.110	-0.100	-0.067	-0.048	-0.038
21	-35.1	1.232	0.310	0.029	-0.180	-0.229	-0.094	-0.172	-0.182	-0.140	-0.116	-0.100	-0.124	-0.137	-0.236	-0.110	-0.100	-0.067	-0.048	-0.038
22	-25.1	1.231	0.314	0.034	-0.175	-0.200	-0.078	-0.194	-0.173	-0.146	-0.125	-0.105	-0.125	-0.137	-0.250	-0.110	-0.100	-0.067	-0.048	-0.038
23	-15.0	1.230	0.314	0.036	-0.170	-0.183	-0.067	-0.207	-0.201	-0.152	-0.135	-0.112	-0.129	-0.137	-0.261	-0.110	-0.100	-0.067	-0.048	-0.038
24	-5.0	1.229	0.315	0.040	-0.160	-0.162	-0.050	-0.221	-0.205	-0.158	-0.147	-0.120	-0.133	-0.137	-0.270	-0.110	-0.100	-0.067	-0.048	-0.038
25	5.0	1.229	0.316	0.040	-0.160	-0.162	-0.050	-0.221	-0.205	-0.158	-0.147	-0.120	-0.133	-0.137	-0.270	-0.110	-0.100	-0.067	-0.048	-0.038
26	15.1	1.231	0.316	0.039	-0.160	-0.163	-0.050	-0.228	-0.208	-0.163	-0.155	-0.120	-0.132	-0.137	-0.272	-0.110	-0.100	-0.067	-0.048	-0.038
27	25.0	1.229	0.312	0.034	-0.170	-0.177	-0.050	-0.216	-0.191	-0.164	-0.146	-0.119	-0.131	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
28	35.0	1.229	0.310	0.030	-0.170	-0.170	-0.050	-0.200	-0.170	-0.161	-0.142	-0.112	-0.120	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
29	45.0	1.228	0.307	0.025	-0.181	-0.175	-0.050	-0.183	-0.173	-0.152	-0.122	-0.109	-0.120	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
30	54.9	1.231	0.303	0.021	-0.180	-0.169	-0.050	-0.171	-0.162	-0.145	-0.118	-0.100	-0.120	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
31	64.9	1.230	0.299	0.018	-0.190	-0.173	-0.050	-0.146	-0.160	-0.134	-0.113	-0.100	-0.119	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
32	74.9	1.231	0.295	0.013	-0.198	-0.169	-0.050	-0.129	-0.140	-0.120	-0.106	-0.100	-0.117	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
33	84.9	1.233	0.293	0.009	-0.203	-0.160	-0.050	-0.113	-0.126	-0.120	-0.106	-0.100	-0.115	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
34	95.0	1.230	0.288	0.004	-0.205	-0.170	-0.050	-0.099	-0.117	-0.114	-0.103	-0.098	-0.115	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
35	105.0	1.231	0.284	0.001	-0.208	-0.176	-0.050	-0.087	-0.109	-0.109	-0.098	-0.099	-0.113	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
36	115.0	1.228	0.279	-0.005	-0.211	-0.172	-0.050	-0.076	-0.103	-0.104	-0.097	-0.099	-0.112	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
37	125.0	1.230	0.275	-0.009	-0.210	-0.172	-0.050	-0.066	-0.094	-0.094	-0.094	-0.094	-0.110	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
38	134.9	1.230	0.272	-0.012	-0.210	-0.172	-0.050	-0.055	-0.092	-0.094	-0.094	-0.094	-0.110	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
39	144.9	1.230	0.269	-0.014	-0.220	-0.170	-0.050	-0.045	-0.088	-0.091	-0.089	-0.092	-0.105	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
40	154.9	1.230	0.266	-0.019	-0.225	-0.178	-0.050	-0.035	-0.085	-0.090	-0.088	-0.092	-0.105	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
41	164.9	1.229	0.265	-0.019	-0.226	-0.178	-0.050	-0.033	-0.088	-0.090	-0.088	-0.092	-0.105	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038
42	174.9	1.229	0.265	-0.020	-0.226	-0.178	-0.050	-0.033	-0.090	-0.086	-0.086	-0.086	-0.102	-0.137	-0.274	-0.110	-0.100	-0.067	-0.048	-0.038

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.278	0.055	0.033	0.110	0.138	0.165	0.193	0.220	0.249
CNX	-0.325	-0.629	-0.730	-2.360	-2.421	2.920	1.848	1.608	0.834
CYX	-0.016	-0.043	-0.037	-0.513	-0.129	0.497	0.072	0.219	0.150
CAX	2.9370	0.0782	-1.8302	-0.9528	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.275	0.303	0.330	0.368	0.385	0.413	0.440	0.478	0.495
CNX	0.388	0.426	0.715	2.024	1.488	0.214	-1.012	-0.479	-0.1294
CYX	0.073	0.064	0.177	0.461	0.250	-0.063	-0.186	-0.084	-0.0154
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CM	0.101	0.021	0.068	-0.324	CLW	CLW	CLW	CLW	CLW
					-0.034				



DATE 6-MAR-78 PROJECT NO 941C-WOC

AND, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ARNOOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEX10-6 PT

TC-532 157 0.926 3.002 1452.8 835.2 500.9 976.4 82.7

DATE 2-17-78  
AEDC PROPELSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 202  
0.00 12  
ALFA 0.02  
PSAR 2047.7  
X 11.218  
Y 0.000  
Z -2.572

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.230	0.264	-0.020	-0.227	-0.336	-0.254	-0.027	-0.075	-0.082	-0.083	-0.087	-0.090	-0.115	-0.136	-0.143	-0.099	-0.067	-0.049	-0.058
3	-164.9	1.231	0.265	-0.021	-0.226	-0.339	-0.260	-0.028	-0.072	-0.079	-0.080	-0.085	-0.097	-0.111	-0.130	-0.136	-0.096	-0.065	-0.048	-0.057
4	-155.0	1.229	0.266	-0.019	-0.226	-0.345	-0.263	-0.024	-0.074	-0.079	-0.080	-0.084	-0.097	-0.111	-0.130	-0.139	-0.097	-0.066	-0.048	-0.058
5	-144.9	1.226	0.268	-0.018	-0.226	-0.351	-0.263	-0.023	-0.077	-0.081	-0.081	-0.085	-0.097	-0.112	-0.133	-0.142	-0.099	-0.068	-0.049	-0.059
6	-135.1	1.226	0.269	-0.016	-0.224	-0.357	-0.257	-0.023	-0.081	-0.084	-0.083	-0.086	-0.099	-0.114	-0.134	-0.147	-0.102	-0.068	-0.050	-0.059
7	-125.0	1.230	0.274	-0.013	-0.220	-0.362	-0.243	-0.023	-0.082	-0.085	-0.083	-0.085	-0.097	-0.114	-0.135	-0.150	-0.100	-0.066	-0.048	-0.057
8	-115.1	1.228	0.273	-0.009	-0.216	-0.370	-0.214	-0.043	-0.089	-0.088	-0.086	-0.088	-0.100	-0.115	-0.135	-0.159	-0.103	-0.066	-0.048	-0.058
9	-105.0	1.230	0.278	-0.006	-0.214	-0.374	-0.196	-0.048	-0.094	-0.092	-0.088	-0.090	-0.103	-0.119	-0.144	-0.165	-0.104	-0.067	-0.048	-0.059
10	-95.0	1.228	0.283	-0.003	-0.211	-0.373	-0.174	-0.059	-0.101	-0.097	-0.091	-0.092	-0.103	-0.121	-0.151	-0.175	-0.105	-0.066	-0.048	-0.059
11	-84.9	1.229	0.286	-0.001	-0.209	-0.369	-0.158	-0.069	-0.107	-0.100	-0.094	-0.095	-0.107	-0.124	-0.155	-0.180	-0.104	-0.066	-0.048	-0.058
12	-74.9	1.229	0.291	0.007	-0.202	-0.362	-0.138	-0.078	-0.113	-0.103	-0.096	-0.095	-0.109	-0.126	-0.156	-0.190	-0.103	-0.060	-0.043	-0.054
13	-65.0	1.230	0.294	0.008	-0.201	-0.357	-0.129	-0.080	-0.121	-0.109	-0.099	-0.098	-0.112	-0.130	-0.170	-0.200	-0.105	-0.059	-0.043	-0.057
14	-54.9	1.229	0.298	0.013	-0.195	-0.345	-0.117	-0.099	-0.129	-0.113	-0.102	-0.099	-0.115	-0.133	-0.178	-0.210	-0.105	-0.054	-0.041	-0.056
15	-45.1	1.230	0.302	0.018	-0.189	-0.332	-0.109	-0.108	-0.136	-0.117	-0.104	-0.099	-0.115	-0.135	-0.186	-0.217	-0.103	-0.048	-0.037	-0.054
16	-35.1	1.229	0.305	0.022	-0.185	-0.318	-0.105	-0.110	-0.145	-0.123	-0.107	-0.100	-0.110	-0.139	-0.196	-0.225	-0.102	-0.043	-0.034	-0.053
17	-25.0	1.228	0.306	0.025	-0.182	-0.305	-0.102	-0.128	-0.153	-0.139	-0.116	-0.120	-0.118	-0.142	-0.203	-0.233	-0.104	-0.039	-0.033	-0.053
18	-15.0	1.231	0.309	0.029	-0.178	-0.291	-0.101	-0.138	-0.160	-0.146	-0.115	-0.120	-0.120	-0.145	-0.210	-0.238	-0.103	-0.034	-0.031	-0.052
19	-5.0	1.230	0.310	0.031	-0.177	-0.281	-0.099	-0.147	-0.164	-0.141	-0.117	-0.123	-0.123	-0.146	-0.220	-0.242	-0.103	-0.031	-0.029	-0.052
20	5.0	1.228	0.310	0.032	-0.174	-0.273	-0.099	-0.145	-0.163	-0.142	-0.117	-0.120	-0.120	-0.146	-0.223	-0.238	-0.100	-0.027	-0.028	-0.051
21	15.0	1.229	0.309	0.030	-0.176	-0.273	-0.104	-0.148	-0.163	-0.145	-0.118	-0.120	-0.120	-0.148	-0.223	-0.239	-0.100	-0.028	-0.029	-0.052
22	25.0	1.231	0.308	0.028	-0.178	-0.278	-0.106	-0.147	-0.159	-0.143	-0.117	-0.120	-0.120	-0.147	-0.220	-0.239	-0.100	-0.031	-0.030	-0.053
23	35.0	1.229	0.306	0.026	-0.179	-0.286	-0.106	-0.148	-0.150	-0.140	-0.117	-0.120	-0.120	-0.144	-0.218	-0.232	-0.098	-0.033	-0.030	-0.054
24	45.0	1.231	0.303	0.020	-0.186	-0.303	-0.112	-0.152	-0.143	-0.132	-0.110	-0.120	-0.120	-0.142	-0.215	-0.231	-0.100	-0.040	-0.033	-0.054
25	54.9	1.231	0.299	0.017	-0.189	-0.317	-0.118	-0.158	-0.133	-0.135	-0.107	-0.120	-0.120	-0.139	-0.200	-0.224	-0.100	-0.046	-0.036	-0.054
26	64.9	1.230	0.296	0.012	-0.193	-0.327	-0.118	-0.158	-0.126	-0.119	-0.104	-0.099	-0.110	-0.136	-0.193	-0.217	-0.100	-0.050	-0.038	-0.055
27	74.9	1.231	0.293	0.010	-0.197	-0.337	-0.140	-0.160	-0.126	-0.117	-0.100	-0.097	-0.110	-0.133	-0.185	-0.208	-0.098	-0.053	-0.039	-0.055
28	84.9	1.231	0.289	0.005	-0.201	-0.345	-0.157	-0.169	-0.140	-0.127	-0.097	-0.095	-0.110	-0.131	-0.178	-0.199	-0.099	-0.056	-0.041	-0.057
29	94.9	1.231	0.284	0.000	-0.207	-0.352	-0.182	-0.165	-0.140	-0.120	-0.093	-0.093	-0.103	-0.126	-0.164	-0.188	-0.100	-0.060	-0.043	-0.057
30	105.0	1.231	0.281	-0.004	-0.211	-0.356	-0.201	-0.163	-0.140	-0.120	-0.097	-0.098	-0.091	-0.125	-0.158	-0.182	-0.111	-0.063	-0.045	-0.058
31	115.0	1.230	0.277	-0.008	-0.214	-0.353	-0.220	-0.165	-0.140	-0.120	-0.099	-0.090	-0.100	-0.122	-0.153	-0.177	-0.101	-0.064	-0.047	-0.058
32	125.0	1.231	0.274	-0.011	-0.217	-0.349	-0.233	-0.166	-0.140	-0.120	-0.098	-0.086	-0.090	-0.120	-0.150	-0.175	-0.100	-0.064	-0.047	-0.059
33	134.9	1.231	0.270	-0.015	-0.222	-0.347	-0.248	-0.168	-0.140	-0.120	-0.097	-0.085	-0.088	-0.118	-0.145	-0.168	-0.100	-0.066	-0.048	-0.060
34	144.9	1.228	0.267	-0.018	-0.223	-0.345	-0.255	-0.172	-0.140	-0.120	-0.098	-0.084	-0.087	-0.116	-0.138	-0.161	-0.099	-0.066	-0.048	-0.060
35	154.9	1.230	0.267	-0.019	-0.225	-0.340	-0.259	-0.175	-0.140	-0.120	-0.098	-0.084	-0.087	-0.113	-0.135	-0.161	-0.098	-0.065	-0.047	-0.059
36	164.9	1.230	0.265	-0.021	-0.227	-0.339	-0.262	-0.178	-0.140	-0.120	-0.098	-0.081	-0.085	-0.090	-0.133	-0.161	-0.097	-0.066	-0.049	-0.059
37	174.9	1.229	0.263	-0.022	-0.229	-0.338	-0.263	-0.181	-0.140	-0.120	-0.098	-0.082	-0.087	-0.090	-0.133	-0.161	-0.097	-0.068	-0.049	-0.060

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0276	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX	-0.3013	-0.5721	-0.7215	-0.8670	-2.8540	2.0029	1.4003	0.9513	0.5607
CY	-0.0093	-0.0334	-0.0769	-0.4032	0.0101	0.3560	0.0822	0.4483	0.0701
CZ	2.9564	0.0309	-1.8579	-1.1061	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	0.3046	0.3831	0.5456	1.4190	1.6330	-0.0566	-0.5492	-0.3067	-0.1123
CY	0.0361	0.0587	0.1125	0.3151	0.7637	-0.0680	-0.1081	-0.0583	-0.0112
CZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CS 0.0000 CY 0.018 CA 0.000 CLM -0.000

DATE 6-MAR-78 PROJECT NO P41C-WOC

AND, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ARNSOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH PT P Q

TC-532 158 0.926 3.003 1453.9 835.6 501.4

ALFA CONFIG SURVEY 203

ALFA 0.00 12

PRAP 2047.9

VI 976.8

YT 82.9

DATE 2-17-78

AEDC PROPELSION WIND TUNNEL

TRANSONIC 47

PNT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.229	0.263	-0.023	-0.239	-0.355	-0.266	-0.008	-0.063	-0.073	-0.076	-0.081	-0.091	-0.106	-0.121	-0.125	-0.084	-0.066	-0.049	-0.060
3	-164.9	1.229	0.263	-0.023	-0.239	-0.355	-0.266	-0.008	-0.063	-0.073	-0.076	-0.081	-0.091	-0.106	-0.121	-0.125	-0.084	-0.066	-0.049	-0.060
4	-155.0	1.229	0.263	-0.023	-0.239	-0.355	-0.266	-0.008	-0.063	-0.073	-0.076	-0.081	-0.091	-0.106	-0.121	-0.125	-0.084	-0.066	-0.049	-0.060
5	-145.0	1.229	0.263	-0.023	-0.239	-0.355	-0.266	-0.008	-0.063	-0.073	-0.076	-0.081	-0.091	-0.106	-0.121	-0.125	-0.084	-0.066	-0.049	-0.060
6	-135.1	1.230	0.263	-0.023	-0.239	-0.355	-0.266	-0.008	-0.063	-0.073	-0.076	-0.081	-0.091	-0.106	-0.121	-0.125	-0.084	-0.066	-0.049	-0.060
7	-125.0	1.226	0.270	-0.016	-0.234	-0.370	-0.261	-0.020	-0.071	-0.077	-0.078	-0.082	-0.094	-0.108	-0.124	-0.135	-0.089	-0.068	-0.051	-0.061
8	-115.0	1.229	0.274	-0.012	-0.231	-0.380	-0.253	-0.015	-0.073	-0.077	-0.078	-0.082	-0.094	-0.108	-0.124	-0.135	-0.089	-0.067	-0.049	-0.059
9	-105.0	1.230	0.278	-0.009	-0.217	-0.383	-0.241	-0.020	-0.076	-0.080	-0.079	-0.082	-0.094	-0.109	-0.129	-0.143	-0.099	-0.066	-0.049	-0.059
10	-95.0	1.229	0.282	-0.004	-0.213	-0.384	-0.219	-0.038	-0.082	-0.084	-0.082	-0.084	-0.093	-0.112	-0.135	-0.153	-0.111	-0.065	-0.048	-0.060
11	-85.0	1.229	0.285	-0.001	-0.210	-0.384	-0.219	-0.051	-0.084	-0.089	-0.086	-0.089	-0.100	-0.117	-0.141	-0.162	-0.120	-0.065	-0.048	-0.060
12	-74.9	1.228	0.288	0.002	-0.207	-0.380	-0.183	-0.051	-0.094	-0.092	-0.088	-0.089	-0.101	-0.119	-0.146	-0.169	-0.152	-0.065	-0.048	-0.059
13	-65.0	1.227	0.291	0.005	-0.202	-0.380	-0.163	-0.060	-0.098	-0.096	-0.091	-0.091	-0.103	-0.121	-0.151	-0.176	-0.151	-0.063	-0.047	-0.059
14	-54.9	1.228	0.294	0.009	-0.199	-0.377	-0.148	-0.071	-0.103	-0.099	-0.093	-0.092	-0.105	-0.123	-0.156	-0.184	-0.151	-0.061	-0.045	-0.058
15	-45.1	1.230	0.299	0.014	-0.193	-0.371	-0.133	-0.070	-0.106	-0.101	-0.094	-0.092	-0.108	-0.125	-0.161	-0.190	-0.150	-0.057	-0.043	-0.056
16	-35.1	1.230	0.300	0.017	-0.191	-0.368	-0.125	-0.081	-0.113	-0.107	-0.097	-0.095	-0.109	-0.129	-0.169	-0.200	-0.150	-0.056	-0.043	-0.056
17	-25.1	1.229	0.303	0.021	-0.187	-0.360	-0.118	-0.090	-0.118	-0.112	-0.100	-0.097	-0.111	-0.132	-0.176	-0.209	-0.150	-0.053	-0.041	-0.057
18	-15.0	1.230	0.304	0.023	-0.184	-0.359	-0.115	-0.090	-0.120	-0.112	-0.100	-0.096	-0.111	-0.133	-0.179	-0.212	-0.150	-0.052	-0.040	-0.056
19	-5.0	1.229	0.304	0.023	-0.183	-0.357	-0.115	-0.090	-0.123	-0.115	-0.101	-0.098	-0.113	-0.135	-0.183	-0.216	-0.150	-0.050	-0.039	-0.056
20	5.0	1.228	0.304	0.025	-0.183	-0.353	-0.116	-0.091	-0.124	-0.116	-0.102	-0.098	-0.113	-0.135	-0.185	-0.218	-0.150	-0.050	-0.039	-0.056
21	15.0	1.231	0.304	0.024	-0.182	-0.350	-0.117	-0.091	-0.123	-0.116	-0.101	-0.098	-0.113	-0.136	-0.185	-0.217	-0.150	-0.049	-0.039	-0.056
22	25.0	1.229	0.303	0.022	-0.185	-0.350	-0.120	-0.090	-0.121	-0.115	-0.102	-0.098	-0.113	-0.136	-0.185	-0.215	-0.150	-0.050	-0.040	-0.057
23	35.0	1.230	0.301	0.021	-0.186	-0.357	-0.126	-0.093	-0.116	-0.111	-0.099	-0.097	-0.111	-0.133	-0.185	-0.208	-0.150	-0.051	-0.039	-0.056
24	45.0	1.231	0.298	0.016	-0.192	-0.361	-0.140	-0.087	-0.110	-0.108	-0.097	-0.095	-0.110	-0.131	-0.174	-0.202	-0.150	-0.051	-0.041	-0.057
25	54.9	1.230	0.295	0.013	-0.194	-0.364	-0.154	-0.081	-0.105	-0.104	-0.094	-0.094	-0.104	-0.128	-0.168	-0.197	-0.150	-0.050	-0.042	-0.057
26	64.9	1.229	0.291	0.008	-0.200	-0.370	-0.177	-0.070	-0.101	-0.101	-0.094	-0.094	-0.101	-0.127	-0.163	-0.190	-0.150	-0.049	-0.045	-0.060
27	74.9	1.230	0.288	0.004	-0.203	-0.371	-0.199	-0.055	-0.094	-0.095	-0.090	-0.091	-0.103	-0.123	-0.156	-0.178	-0.150	-0.047	-0.043	-0.059
28	84.9	1.231	0.285	0.001	-0.207	-0.373	-0.218	-0.051	-0.090	-0.093	-0.089	-0.090	-0.103	-0.121	-0.150	-0.174	-0.150	-0.047	-0.043	-0.060
29	95.0	1.231	0.281	0.002	-0.211	-0.373	-0.237	-0.044	-0.085	-0.089	-0.084	-0.085	-0.100	-0.118	-0.145	-0.166	-0.150	-0.046	-0.042	-0.060
30	105.0	1.231	0.279	0.004	-0.212	-0.371	-0.250	-0.040	-0.080	-0.085	-0.082	-0.085	-0.100	-0.116	-0.140	-0.158	-0.150	-0.047	-0.043	-0.060
31	114.9	1.231	0.276	0.008	-0.217	-0.371	-0.264	-0.031	-0.077	-0.082	-0.081	-0.085	-0.099	-0.113	-0.136	-0.152	-0.150	-0.048	-0.044	-0.060
32	125.0	1.229	0.270	0.012	-0.221	-0.361	-0.275	-0.020	-0.073	-0.080	-0.080	-0.084	-0.098	-0.112	-0.132	-0.145	-0.150	-0.048	-0.044	-0.060
33	134.9	1.229	0.268	0.015	-0.223	-0.361	-0.281	-0.010	-0.069	-0.076	-0.078	-0.082	-0.096	-0.109	-0.128	-0.137	-0.150	-0.048	-0.044	-0.060
34	144.9	1.231	0.266	0.019	-0.227	-0.361	-0.285	-0.000	-0.067	-0.074	-0.077	-0.081	-0.094	-0.108	-0.125	-0.133	-0.150	-0.048	-0.044	-0.060
35	154.9	1.227	0.264	0.021	-0.228	-0.357	-0.284	-0.008	-0.065	-0.073	-0.076	-0.081	-0.092	-0.106	-0.121	-0.128	-0.150	-0.047	-0.043	-0.060
36	164.9	1.230	0.264	0.023	-0.230	-0.357	-0.282	-0.009	-0.062	-0.072	-0.075	-0.080	-0.090	-0.105	-0.119	-0.124	-0.150	-0.047	-0.043	-0.060
37	174.9	1.226	0.262	0.024	-0.231	-0.358	-0.279	-0.011	-0.062	-0.072	-0.076	-0.081	-0.092	-0.105	-0.119	-0.124	-0.150	-0.046	-0.043	-0.060

GRIFICE

XS FT

0.0278

0.0455

0.1110

0.1388

0.1665

0.1943

0.2220

0.2498

0.2776

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

0.0278

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

-1.1085

-1.2370

-1.3655

-1.4940

-1.6225

-1.7510

-1.8795

-2.0080

0.0278

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

-1.1085

-1.2370

-1.3655

-1.4940

-1.6225

-1.7510

-1.8795

-2.0080

0.0278

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

-1.1085

-1.2370

-1.3655

-1.4940

-1.6225

-1.7510

-1.8795

-2.0080

0.0278

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

-1.1085

-1.2370

-1.3655

-1.4940

-1.6225

-1.7510

-1.8795

-2.0080

0.0278

-0.3211

-0.4599

-0.5915

-0.7218

-0.8515

-0.9800

-1.1085

-1.2370

-1.3655

-1.4940





DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARSOLO AIR FORCE STATION, TENNESSEE

TEST PART WACH

TC-532 150 0.928

3.003 1452.8 833.3 502.0 978.3

PT 82.8

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

2.00 12

201

ALFAS

2.02

PRAP

2047.9

X

11.218

Y

0.000

Z

-2.297

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
6	-174.9	1.230	0.311	0.033	-0.166	-0.267	-0.123	-0.021	-0.035	-0.018	-0.039	-0.046	-0.059	-0.077	-0.094	-0.083	-0.064	-0.046	-0.034	-0.050
7	-164.9	1.231	0.310	0.032	-0.169	-0.273	-0.127	-0.021	-0.033	-0.016	-0.039	-0.046	-0.059	-0.076	-0.088	-0.082	-0.065	-0.047	-0.035	-0.050
8	-155.0	1.230	0.310	0.031	-0.170	-0.273	-0.129	-0.021	-0.035	-0.018	-0.040	-0.046	-0.060	-0.077	-0.090	-0.084	-0.067	-0.049	-0.037	-0.051
9	-144.9	1.229	0.309	0.031	-0.169	-0.271	-0.129	-0.021	-0.036	-0.018	-0.040	-0.046	-0.060	-0.077	-0.090	-0.085	-0.067	-0.050	-0.037	-0.052
10	-135.1	1.230	0.309	0.030	-0.169	-0.268	-0.126	-0.021	-0.038	-0.019	-0.040	-0.046	-0.061	-0.079	-0.094	-0.088	-0.069	-0.050	-0.038	-0.052
11	-125.0	1.230	0.308	0.029	-0.168	-0.265	-0.123	-0.021	-0.041	-0.020	-0.042	-0.047	-0.062	-0.081	-0.097	-0.091	-0.071	-0.050	-0.038	-0.053
12	-115.1	1.231	0.309	0.031	-0.166	-0.262	-0.117	-0.021	-0.043	-0.020	-0.042	-0.047	-0.063	-0.083	-0.101	-0.094	-0.072	-0.049	-0.037	-0.052
13	-105.0	1.228	0.307	0.029	-0.165	-0.258	-0.111	-0.022	-0.048	-0.020	-0.045	-0.049	-0.065	-0.086	-0.107	-0.100	-0.075	-0.049	-0.038	-0.053
14	-95.0	1.232	0.309	0.032	-0.161	-0.248	-0.105	-0.033	-0.053	-0.048	-0.045	-0.049	-0.065	-0.089	-0.114	-0.104	-0.075	-0.046	-0.035	-0.052
15	-84.9	1.231	0.308	0.032	-0.160	-0.240	-0.102	-0.034	-0.054	-0.052	-0.047	-0.051	-0.068	-0.094	-0.121	-0.111	-0.077	-0.045	-0.035	-0.052
16	-74.8	1.231	0.309	0.034	-0.156	-0.228	-0.098	-0.046	-0.067	-0.057	-0.049	-0.053	-0.072	-0.099	-0.131	-0.117	-0.078	-0.040	-0.033	-0.052
17	-65.0	1.230	0.310	0.037	-0.151	-0.212	-0.094	-0.060	-0.074	-0.062	-0.051	-0.053	-0.073	-0.103	-0.135	-0.123	-0.077	-0.035	-0.030	-0.051
18	-54.9	1.232	0.312	0.041	-0.145	-0.189	-0.086	-0.081	-0.086	-0.081	-0.086	-0.081	-0.086	-0.108	-0.150	-0.132	-0.076	-0.026	-0.026	-0.049
19	-45.0	1.232	0.314	0.044	-0.140	-0.169	-0.080	-0.098	-0.096	-0.093	-0.095	-0.093	-0.095	-0.114	-0.166	-0.140	-0.076	-0.017	-0.022	-0.049
20	-35.1	1.229	0.316	0.046	-0.136	-0.143	-0.074	-0.120	-0.111	-0.081	-0.060	-0.060	-0.081	-0.121	-0.182	-0.151	-0.075	-0.007	-0.018	-0.049
21	-25.1	1.229	0.316	0.050	-0.131	-0.116	-0.073	-0.134	-0.122	-0.085	-0.064	-0.063	-0.081	-0.124	-0.193	-0.157	-0.072	-0.007	-0.013	-0.047
22	-15.0	1.230	0.316	0.054	-0.126	-0.088	-0.079	-0.156	-0.131	-0.050	-0.076	-0.076	-0.081	-0.130	-0.206	-0.165	-0.070	-0.022	-0.008	-0.046
23	-5.0	1.231	0.317	0.054	-0.125	-0.071	-0.089	-0.168	-0.136	-0.034	-0.091	-0.094	-0.086	-0.132	-0.213	-0.170	-0.069	-0.030	-0.008	-0.047
24	5.0	1.229	0.317	0.054	-0.124	-0.061	-0.097	-0.167	-0.135	-0.035	-0.098	-0.101	-0.088	-0.131	-0.215	-0.170	-0.068	-0.035	-0.005	-0.044
25	15.0	1.228	0.316	0.053	-0.124	-0.068	-0.100	-0.166	-0.130	-0.037	-0.097	-0.097	-0.086	-0.129	-0.215	-0.168	-0.068	-0.035	-0.005	-0.044
26	25.0	1.230	0.315	0.052	-0.126	-0.080	-0.092	-0.152	-0.123	-0.039	-0.084	-0.084	-0.078	-0.128	-0.211	-0.164	-0.069	-0.025	-0.008	-0.046
27	35.0	1.230	0.314	0.049	-0.130	-0.111	-0.084	-0.135	-0.116	-0.034	-0.073	-0.066	-0.081	-0.124	-0.204	-0.158	-0.070	-0.015	-0.010	-0.047
28	45.0	1.229	0.312	0.045	-0.135	-0.110	-0.079	-0.128	-0.107	-0.037	-0.068	-0.060	-0.077	-0.121	-0.195	-0.152	-0.073	-0.002	-0.015	-0.048
29	54.9	1.228	0.310	0.041	-0.141	-0.104	-0.082	-0.110	-0.094	-0.030	-0.064	-0.058	-0.076	-0.116	-0.182	-0.143	-0.074	-0.011	-0.020	-0.049
30	64.9	1.230	0.309	0.039	-0.146	-0.085	-0.085	-0.085	-0.083	-0.073	-0.059	-0.057	-0.073	-0.111	-0.188	-0.134	-0.074	-0.011	-0.020	-0.050
31	74.9	1.230	0.308	0.037	-0.149	-0.200	-0.088	-0.071	-0.074	-0.067	-0.057	-0.056	-0.071	-0.106	-0.157	-0.126	-0.073	-0.027	-0.026	-0.051
32	84.9	1.232	0.309	0.036	-0.152	-0.215	-0.091	-0.058	-0.065	-0.062	-0.051	-0.053	-0.071	-0.101	-0.145	-0.118	-0.073	-0.032	-0.028	-0.050
33	95.0	1.232	0.308	0.033	-0.157	-0.231	-0.095	-0.048	-0.059	-0.056	-0.050	-0.052	-0.070	-0.096	-0.134	-0.111	-0.073	-0.038	-0.031	-0.051
34	105.0	1.230	0.307	0.032	-0.160	-0.241	-0.099	-0.047	-0.055	-0.053	-0.049	-0.052	-0.065	-0.094	-0.128	-0.108	-0.074	-0.042	-0.034	-0.053
35	115.0	1.231	0.308	0.031	-0.164	-0.254	-0.102	-0.038	-0.050	-0.049	-0.047	-0.051	-0.061	-0.091	-0.126	-0.103	-0.074	-0.045	-0.036	-0.054
36	125.0	1.231	0.308	0.031	-0.164	-0.260	-0.104	-0.038	-0.045	-0.045	-0.044	-0.049	-0.063	-0.087	-0.112	-0.098	-0.071	-0.046	-0.035	-0.052
37	134.9	1.232	0.309	0.031	-0.167	-0.266	-0.109	-0.028	-0.042	-0.043	-0.042	-0.048	-0.064	-0.084	-0.108	-0.093	-0.070	-0.047	-0.036	-0.052
38	144.9	1.232	0.310	0.031	-0.167	-0.270	-0.113	-0.028	-0.038	-0.040	-0.041	-0.046	-0.062	-0.081	-0.099	-0.089	-0.068	-0.046	-0.036	-0.052
39	154.9	1.229	0.309	0.030	-0.169	-0.273	-0.119	-0.028	-0.037	-0.039	-0.041	-0.047	-0.062	-0.079	-0.098	-0.086	-0.067	-0.047	-0.037	-0.052
40	164.9	1.230	0.310	0.031	-0.169	-0.273	-0.122	-0.031	-0.035	-0.038	-0.039	-0.046	-0.068	-0.077	-0.092	-0.083	-0.068	-0.047	-0.036	-0.051
41	174.9	1.231	0.310	0.032	-0.170	-0.274	-0.124	-0.031	-0.034	-0.036	-0.039	-0.045	-0.059	-0.075	-0.090	-0.082	-0.068	-0.047	-0.036	-0.050

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.0411	-0.2198	-0.6193	-1.9097	-0.6777	2.1655	1.5107	0.9225	0.6497
CXK	0.0017	-0.0219	-0.0773	-0.3558	-0.1570	0.3841	0.1147	0.1679	0.1441
CXK	3.2091	0.4602	-1.3855	-0.6816	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	0.5080	0.3981	0.9526	1.9085	1.3303	0.0810	-1.0989	-0.4427	-0.0767
CXK	0.0800	0.0509	0.1300	0.4032	0.1516	-0.0321	-0.2046	-0.0907	-0.0136
CXK	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 0.115 CY 0.019 CA 0.104 CLM -0.206 CLN -0.018



DATE 6-MAR-78 PROJECT NO P41C-MOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEX10-6 PT

TC-532 151 0.928 3.003 1453.3 833.6 502.2 978.5 81.0

DATE 2-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 202  
2.00 12

PRAM 2047.8  
X 11.218  
Y 0.000  
Z -2.572

PNT	DBHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.230	0.311	0.033	-0.170	-0.281	-0.129	-0.011	-0.030	-0.034	-0.036	-0.042	-0.056	-0.071	-0.084	-0.078	-0.082	-0.046	-0.035	-0.050
3	-184.9	1.230	0.310	0.031	-0.172	-0.285	-0.133	-0.011	-0.029	-0.032	-0.036	-0.042	-0.055	-0.069	-0.081	-0.075	-0.082	-0.047	-0.036	-0.050
4	-155.0	1.231	0.310	0.030	-0.172	-0.285	-0.135	-0.010	-0.029	-0.032	-0.036	-0.042	-0.055	-0.069	-0.081	-0.076	-0.082	-0.047	-0.036	-0.051
5	-144.9	1.231	0.310	0.031	-0.170	-0.280	-0.134	-0.008	-0.029	-0.031	-0.035	-0.040	-0.054	-0.069	-0.081	-0.075	-0.081	-0.046	-0.035	-0.050
6	-135.1	1.230	0.309	0.029	-0.172	-0.280	-0.133	-0.011	-0.032	-0.034	-0.037	-0.042	-0.056	-0.072	-0.084	-0.080	-0.085	-0.048	-0.037	-0.052
7	-125.0	1.230	0.307	0.029	-0.172	-0.277	-0.129	-0.010	-0.034	-0.036	-0.038	-0.044	-0.057	-0.073	-0.088	-0.084	-0.087	-0.048	-0.038	-0.053
8	-115.0	1.230	0.307	0.029	-0.169	-0.274	-0.121	-0.009	-0.035	-0.036	-0.038	-0.043	-0.056	-0.075	-0.090	-0.086	-0.087	-0.047	-0.037	-0.052
9	-105.0	1.231	0.307	0.029	-0.169	-0.273	-0.112	-0.009	-0.038	-0.038	-0.039	-0.044	-0.057	-0.077	-0.093	-0.089	-0.088	-0.047	-0.036	-0.052
10	-94.9	1.230	0.305	0.028	-0.166	-0.268	-0.105	-0.021	-0.042	-0.041	-0.042	-0.047	-0.063	-0.081	-0.103	-0.095	-0.090	-0.047	-0.036	-0.052
11	-85.0	1.232	0.305	0.029	-0.165	-0.264	-0.102	-0.021	-0.047	-0.045	-0.043	-0.048	-0.064	-0.084	-0.107	-0.100	-0.092	-0.046	-0.035	-0.052
12	-74.9	1.230	0.303	0.029	-0.162	-0.258	-0.097	-0.032	-0.052	-0.049	-0.046	-0.051	-0.067	-0.089	-0.115	-0.106	-0.094	-0.044	-0.035	-0.052
13	-65.0	1.230	0.304	0.031	-0.157	-0.249	-0.089	-0.042	-0.059	-0.052	-0.048	-0.051	-0.065	-0.092	-0.124	-0.111	-0.093	-0.038	-0.031	-0.051
14	-54.9	1.231	0.305	0.032	-0.155	-0.233	-0.084	-0.042	-0.062	-0.055	-0.049	-0.052	-0.070	-0.096	-0.130	-0.114	-0.093	-0.035	-0.028	-0.050
15	-45.0	1.231	0.305	0.034	-0.151	-0.221	-0.078	-0.053	-0.069	-0.059	-0.053	-0.053	-0.073	-0.099	-0.138	-0.120	-0.093	-0.030	-0.028	-0.049
16	-35.1	1.230	0.305	0.038	-0.146	-0.203	-0.071	-0.076	-0.078	-0.083	-0.083	-0.083	-0.096	-0.104	-0.151	-0.127	-0.092	-0.023	-0.023	-0.048
17	-25.1	1.231	0.305	0.037	-0.144	-0.194	-0.069	-0.077	-0.083	-0.086	-0.086	-0.086	-0.097	-0.106	-0.160	-0.130	-0.092	-0.019	-0.019	-0.048
18	-15.0	1.228	0.305	0.038	-0.142	-0.180	-0.066	-0.088	-0.092	-0.092	-0.092	-0.092	-0.099	-0.108	-0.168	-0.136	-0.092	-0.013	-0.013	-0.048
19	-5.0	1.229	0.305	0.039	-0.140	-0.172	-0.065	-0.097	-0.096	-0.096	-0.096	-0.096	-0.101	-0.111	-0.172	-0.137	-0.089	-0.009	-0.009	-0.047
20	5.0	1.231	0.306	0.040	-0.138	-0.161	-0.065	-0.096	-0.096	-0.096	-0.096	-0.096	-0.101	-0.111	-0.175	-0.137	-0.087	-0.007	-0.007	-0.047
21	15.0	1.231	0.307	0.041	-0.137	-0.161	-0.065	-0.095	-0.095	-0.095	-0.095	-0.095	-0.101	-0.111	-0.175	-0.135	-0.085	-0.006	-0.006	-0.046
22	25.0	1.230	0.305	0.039	-0.140	-0.174	-0.067	-0.095	-0.097	-0.097	-0.097	-0.097	-0.103	-0.113	-0.178	-0.134	-0.087	-0.010	-0.010	-0.047
23	35.0	1.231	0.305	0.038	-0.141	-0.182	-0.067	-0.094	-0.096	-0.096	-0.096	-0.096	-0.103	-0.113	-0.180	-0.131	-0.087	-0.013	-0.013	-0.047
24	45.0	1.230	0.304	0.035	-0.146	-0.200	-0.071	-0.081	-0.078	-0.087	-0.087	-0.087	-0.095	-0.106	-0.160	-0.127	-0.070	-0.021	-0.021	-0.048
25	54.9	1.228	0.302	0.031	-0.150	-0.211	-0.075	-0.088	-0.071	-0.083	-0.083	-0.083	-0.094	-0.107	-0.150	-0.122	-0.071	-0.027	-0.027	-0.049
26	64.9	1.232	0.304	0.033	-0.153	-0.224	-0.078	-0.085	-0.065	-0.089	-0.089	-0.089	-0.099	-0.110	-0.168	-0.136	-0.070	-0.013	-0.013	-0.050
27	74.9	1.229	0.303	0.031	-0.156	-0.238	-0.082	-0.085	-0.059	-0.093	-0.093	-0.093	-0.103	-0.114	-0.178	-0.140	-0.071	-0.010	-0.010	-0.050
28	84.9	1.232	0.303	0.031	-0.159	-0.248	-0.085	-0.084	-0.053	-0.091	-0.091	-0.091	-0.101	-0.112	-0.178	-0.140	-0.071	-0.010	-0.010	-0.051
29	95.0	1.231	0.304	0.029	-0.163	-0.261	-0.091	-0.083	-0.048	-0.098	-0.098	-0.098	-0.108	-0.119	-0.180	-0.140	-0.071	-0.010	-0.010	-0.052
30	105.0	1.230	0.305	0.029	-0.164	-0.268	-0.093	-0.083	-0.044	-0.098	-0.098	-0.098	-0.108	-0.119	-0.180	-0.140	-0.071	-0.010	-0.010	-0.052
31	115.0	1.229	0.305	0.029	-0.167	-0.277	-0.097	-0.083	-0.041	-0.098	-0.098	-0.098	-0.108	-0.119	-0.180	-0.140	-0.071	-0.010	-0.010	-0.053
32	125.0	1.231	0.307	0.030	-0.168	-0.289	-0.099	-0.082	-0.037	-0.099	-0.099	-0.099	-0.109	-0.120	-0.180	-0.140	-0.071	-0.010	-0.010	-0.053
33	134.9	1.231	0.307	0.029	-0.171	-0.288	-0.106	-0.092	-0.035	-0.099	-0.099	-0.099	-0.109	-0.120	-0.180	-0.140	-0.071	-0.010	-0.010	-0.053
34	144.9	1.228	0.308	0.030	-0.171	-0.288	-0.112	-0.092	-0.032	-0.098	-0.098	-0.098	-0.108	-0.119	-0.180	-0.140	-0.071	-0.010	-0.010	-0.052
35	154.9	1.231	0.309	0.031	-0.172	-0.291	-0.118	-0.093	-0.031	-0.099	-0.099	-0.099	-0.109	-0.120	-0.180	-0.140	-0.071	-0.010	-0.010	-0.052
36	164.9	1.230	0.310	0.031	-0.172	-0.290	-0.123	-0.093	-0.029	-0.099	-0.099	-0.099	-0.109	-0.120	-0.180	-0.140	-0.071	-0.010	-0.010	-0.050
37	174.9	1.229	0.310	0.031	-0.172	-0.288	-0.128	-0.093	-0.028	-0.099	-0.099	-0.099	-0.109	-0.120	-0.180	-0.140	-0.071	-0.010	-0.010	-0.050

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.0315	-0.0916	-0.4601	-1.7625	-1.0180	1.2950	1.0106	0.6665	0.3915
CV	0.0077	-0.0148	-0.0676	-0.1643	-0.3165	0.3741	0.1166	0.1207	0.0690
CAR	3.1421	0.3941	-1.4482	-0.8100	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	0.2903	0.3567	0.6571	1.4393	0.9710	0.1166	-0.5841	-0.2753	-0.0618
CV	0.0498	0.0534	0.1246	0.3088	0.1161	-0.0093	-0.1001	-0.0477	-0.7054
CAR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.082	0.017	CA	0.096	CLM	-0.194	CLW	-0.022	

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROLUSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-512 152 0.927

REXIO-6 PT

3.002 1453.0

501.9

278.1

8.0

DATE 2-17-78

AEDC PROLUSION WIND TUNNEL

TRANSMONIC 47

ALPHA CONVIG SURVEY 203

2.00 12

ALPHA 2.01

PAAR 2047.7

12.118

0.000

2.447

DATE 2-17-78

AEDC PROLUSION WIND TUNNEL

TRANSMONIC 47

DATE 2-17-78

AEDC PROLUSION WIND TUNNEL

TRANSMONIC 47

DATE 2-17-78

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DATE 2-17-78

AEDC PROLUSION WIND TUNNEL

TRANSMONIC 47

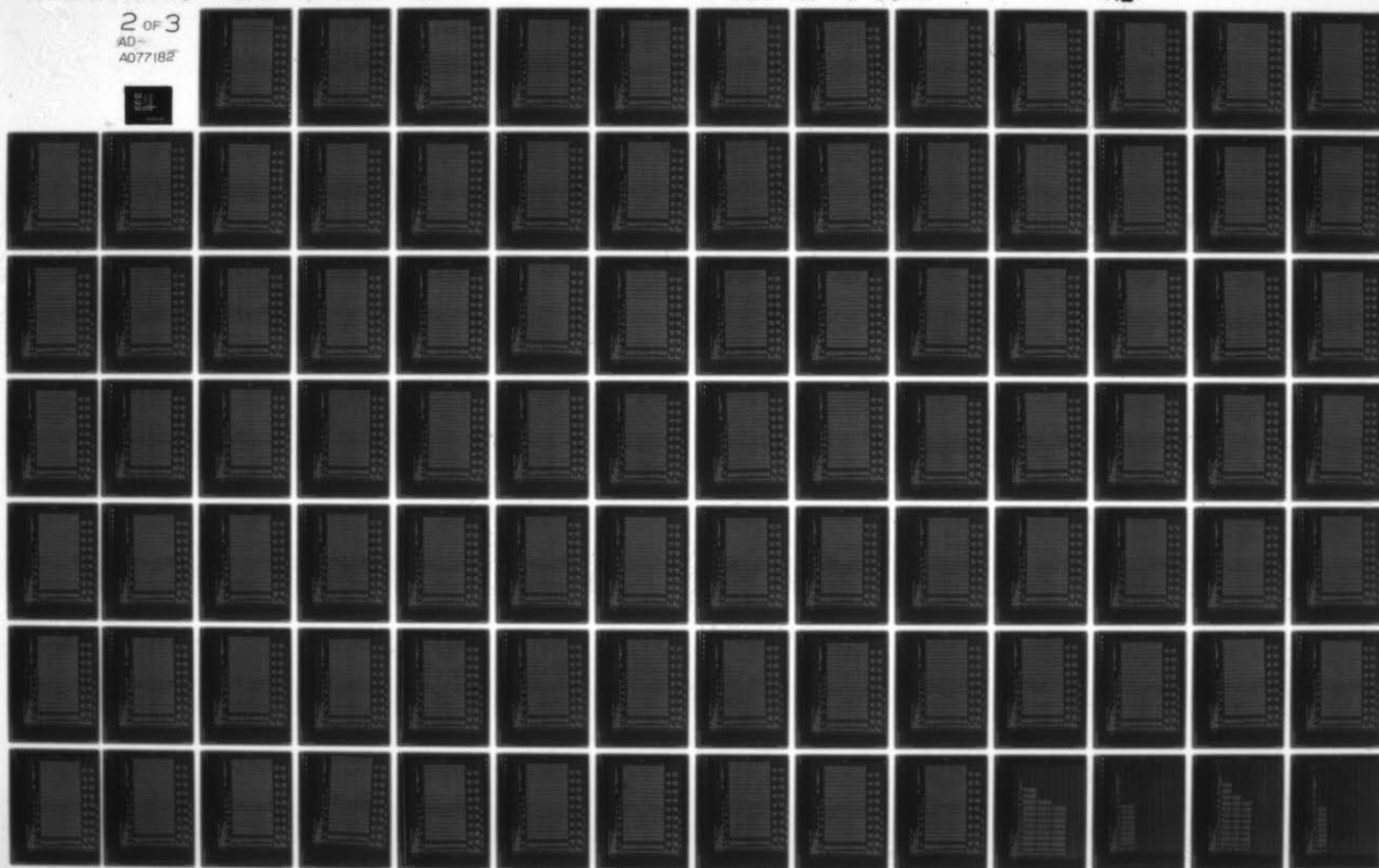


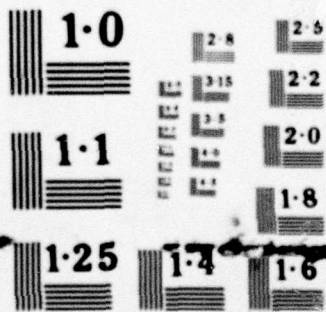
AD-A077 182

NIELSEN ENGINEERING AND RESEARCH INC MOUNTAIN VIEW CALIF F/G 20/4  
DATA REPORT FOR A TEST PROGRAM TO STUDY TRANSONIC FLOW FIELDS A--ETC(U)  
MAY 78 S S STAHARA , A J CRISALLI F44620-75-C-0047  
NEAR-TR-163-VOL-1 AFOSR-TR-79-1070 NL

UNCLASSIFIED

2 OF 3  
AD-A077182





NATIONAL BUREAU OF STANDARDS  
MICROCOPY RESOLUTION TEST CHART



DATE 8-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-532 153 0.928 3.004 1452.7 817.8 592.2 978.8 82.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 204

2.00 12

2047.7 12.718 0.000 -2.947

PNT DPHT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.232 0.289 0.003 -0.210 -0.411 -0.279 0.017 -0.033 -0.038 -0.065 -0.034 -0.041 -0.031 -0.021 -0.008 -0.004 0.001 0.003 -0.021

2 -176.8 1.231 0.290 0.002 -0.212 -0.415 -0.288 0.019 -0.034 -0.038 -0.065 -0.034 -0.041 -0.030 -0.018 -0.006 -0.002 0.002 -0.004 -0.020

3 -164.9 1.231 0.289 0.001 -0.213 -0.417 -0.292 0.018 -0.034 -0.038 -0.067 -0.036 -0.041 -0.030 -0.018 -0.007 -0.002 0.002 0.004 -0.020

4 -155.0 1.231 0.290 0.001 -0.214 -0.419 -0.295 0.019 -0.035 -0.039 -0.070 -0.038 -0.042 -0.032 -0.019 -0.007 -0.003 0.002 0.003 -0.020

5 -144.9 1.231 0.289 0.001 -0.215 -0.419 -0.296 0.019 -0.035 -0.039 -0.072 -0.040 -0.043 -0.032 -0.019 -0.007 -0.003 0.001 0.003 -0.020

6 -135.1 1.231 0.289 0.000 -0.216 -0.421 -0.299 0.019 -0.037 -0.043 -0.076 -0.042 -0.047 -0.032 -0.019 -0.008 -0.003 0.001 0.003 -0.020

7 -125.0 1.231 0.291 0.000 -0.218 -0.422 -0.301 0.019 -0.038 -0.048 -0.080 -0.045 -0.048 -0.033 -0.020 -0.009 -0.003 0.001 0.003 -0.021

8 -115.1 1.231 0.291 0.000 -0.219 -0.425 -0.304 0.019 -0.040 -0.050 -0.084 -0.047 -0.048 -0.033 -0.020 -0.008 -0.003 0.001 0.003 -0.021

9 -105.0 1.231 0.291 0.000 -0.219 -0.425 -0.304 0.019 -0.040 -0.050 -0.084 -0.047 -0.048 -0.033 -0.020 -0.008 -0.003 0.001 0.003 -0.021

10 -95.0 1.231 0.291 0.001 -0.219 -0.426 -0.305 0.019 -0.041 -0.051 -0.085 -0.048 -0.049 -0.031 -0.019 -0.007 -0.003 0.001 0.003 -0.020

11 -85.0 1.231 0.294 0.001 -0.221 -0.429 -0.308 0.007 -0.045 -0.051 -0.089 -0.050 -0.051 -0.031 -0.019 -0.007 -0.002 0.003 0.005 -0.019

12 -74.9 1.231 0.295 0.001 -0.222 -0.432 -0.310 0.007 -0.048 -0.055 -0.101 -0.053 -0.048 -0.030 -0.019 -0.007 -0.001 0.003 0.004 -0.020

13 -65.0 1.232 0.299 0.003 -0.223 -0.436 -0.312 0.007 -0.050 -0.059 -0.106 -0.055 -0.055 -0.031 -0.019 -0.006 -0.000 0.005 0.006 -0.019

14 -54.9 1.231 0.300 0.004 -0.223 -0.440 -0.312 0.007 -0.053 -0.062 -0.112 -0.059 -0.059 -0.031 -0.019 -0.006 -0.000 0.005 0.006 -0.019

15 -45.0 1.230 0.303 0.006 -0.223 -0.444 -0.314 0.007 -0.055 -0.100 -0.119 -0.062 -0.062 -0.031 -0.019 -0.005 -0.001 0.006 0.007 -0.019

16 -35.1 1.231 0.307 0.009 -0.223 -0.449 -0.317 0.007 -0.056 -0.104 -0.123 -0.062 -0.062 -0.031 -0.019 -0.005 -0.001 0.007 0.008 -0.017

17 -25.0 1.231 0.309 0.013 -0.223 -0.454 -0.322 0.008 -0.057 -0.107 -0.127 -0.063 -0.063 -0.031 -0.018 -0.005 -0.001 0.008 0.009 -0.016

18 -15.0 1.231 0.310 0.014 -0.223 -0.461 -0.328 0.008 -0.058 -0.112 -0.134 -0.063 -0.063 -0.031 -0.018 -0.005 -0.001 0.008 0.009 -0.016

19 -5.0 1.231 0.310 0.014 -0.223 -0.461 -0.328 0.008 -0.058 -0.112 -0.134 -0.063 -0.063 -0.031 -0.018 -0.005 -0.001 0.008 0.009 -0.016

20 5.0 1.234 0.311 0.015 -0.223 -0.468 -0.337 0.008 -0.059 -0.116 -0.137 -0.063 -0.063 -0.031 -0.017 -0.005 -0.001 0.006 0.007 -0.017

21 15.0 1.230 0.309 0.013 -0.223 -0.468 -0.337 0.008 -0.059 -0.116 -0.137 -0.063 -0.063 -0.031 -0.017 -0.005 -0.001 0.006 0.007 -0.017

22 25.0 1.230 0.308 0.013 -0.223 -0.468 -0.337 0.008 -0.059 -0.116 -0.137 -0.063 -0.063 -0.031 -0.017 -0.005 -0.001 0.006 0.007 -0.017

23 35.0 1.231 0.307 0.010 -0.224 -0.467 -0.339 0.008 -0.056 -0.111 -0.130 -0.063 -0.063 -0.031 -0.017 -0.005 -0.001 0.007 0.008 -0.017

24 45.0 1.231 0.304 0.006 -0.226 -0.459 -0.341 0.008 -0.055 -0.105 -0.126 -0.063 -0.063 -0.031 -0.017 -0.005 -0.001 0.005 0.007 -0.019

25 54.9 1.231 0.301 0.004 -0.225 -0.451 -0.338 0.008 -0.052 -0.103 -0.119 -0.060 -0.060 -0.031 -0.017 -0.005 -0.001 0.006 0.006 -0.018

26 64.9 1.233 0.299 0.003 -0.224 -0.446 -0.333 0.008 -0.049 -0.098 -0.112 -0.077 -0.077 -0.031 -0.017 -0.004 -0.001 0.006 0.006 -0.018

27 74.9 1.228 0.295 0.000 -0.225 -0.440 -0.337 0.008 -0.047 -0.093 -0.108 -0.076 -0.076 -0.031 -0.017 -0.004 -0.001 0.003 0.005 -0.020

28 85.0 1.233 0.295 -0.000 -0.223 -0.436 -0.333 0.008 -0.043 -0.087 -0.101 -0.073 -0.073 -0.031 -0.017 -0.004 -0.001 0.003 0.005 -0.020

29 95.0 1.230 0.293 -0.000 -0.222 -0.431 -0.318 0.008 -0.041 -0.082 -0.094 -0.071 -0.071 -0.031 -0.017 -0.004 -0.001 0.003 0.005 -0.020

30 105.0 1.231 0.291 -0.002 -0.221 -0.428 -0.315 0.008 -0.039 -0.078 -0.091 -0.069 -0.069 -0.031 -0.017 -0.004 -0.001 0.002 0.004 -0.020

31 115.0 1.233 0.291 -0.001 -0.219 -0.426 -0.311 0.008 -0.037 -0.073 -0.085 -0.067 -0.067 -0.031 -0.017 -0.004 -0.001 0.002 0.004 -0.020

32 125.0 1.231 0.289 -0.003 -0.220 -0.425 -0.309 0.008 -0.036 -0.071 -0.082 -0.065 -0.065 -0.031 -0.017 -0.004 -0.001 0.001 0.003 -0.021

33 134.9 1.231 0.288 -0.002 -0.219 -0.423 -0.306 0.008 -0.036 -0.068 -0.078 -0.062 -0.062 -0.031 -0.017 -0.004 -0.001 0.000 0.003 -0.021

34 144.9 1.231 0.288 -0.000 -0.217 -0.421 -0.302 0.008 -0.035 -0.064 -0.072 -0.058 -0.058 -0.031 -0.017 -0.004 -0.001 0.001 0.003 -0.021

35 154.9 1.233 0.289 -0.001 -0.216 -0.421 -0.300 0.008 -0.035 -0.063 -0.070 -0.056 -0.056 -0.031 -0.017 -0.004 -0.001 0.001 0.003 -0.021

36 164.9 1.231 0.288 -0.001 -0.216 -0.420 -0.298 0.008 -0.035 -0.062 -0.068 -0.057 -0.057 -0.031 -0.017 -0.004 -0.001 0.000 0.002 -0.021

37 174.9 1.231 0.289 0.000 -0.215 -0.418 -0.295 0.008 -0.035 -0.060 -0.066 -0.055 -0.055 -0.031 -0.017 -0.004 -0.001 0.001 0.003 -0.021

GRITICE

2 3 4 5 6 7 8 9 10

X5 FT 0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CXN -0.1401 0.1363 0.1434 0.1505 0.1576 0.1647 0.1718 0.1789 0.1860

CYX -0.0016 0.0173 0.0492 0.1378 0.3065 0.5831 0.8601 1.1371 1.4141

CAX -3.0621 0.0441 -1.9981 -1.4431 0.0000 0.0000 0.0000 0.0000 0.0000

ORITICE

11 12 13 14 15 16 17 18 19

X5 FT 0.2778 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CXN 0.4892 -0.1124 -0.2301 -0.3478 -0.4655 -0.5832 -0.7009 -0.8186 -0.9363

CYX 0.0298 -0.0459 -0.1636 -0.3813 -0.6000 -0.8186 -1.0371 -1.2557 -1.4743

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CN 0.103

CY 0.021

CA 0.051

CLN 0.041

CLM 0.175

CLW 0.041

DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARHOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 3.001 1457.3 833.6 501.5 977.7 82.8

TC-932 144 0.927

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 201  
5.00 12

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.8	1.233	0.381	0.114	-0.072	-0.156	-0.005	0.036	0.038	0.034	0.031	0.023	0.008	-0.008	-0.022	-0.018	-0.012	-0.005	-0.002	-0.025
8	-154.9	1.230	0.379	0.113	-0.075	-0.164	-0.006	0.035	0.038	0.035	0.029	0.021	0.007	-0.008	-0.018	-0.017	-0.013	-0.008	-0.004	-0.026
9	-155.0	1.231	0.377	0.110	-0.079	-0.166	-0.009	0.033	0.039	0.035	0.029	0.022	0.003	-0.009	-0.018	-0.017	-0.014	-0.008	-0.005	-0.026
10	-144.9	1.230	0.372	0.106	-0.081	-0.165	-0.013	0.032	0.038	0.035	0.029	0.021	0.008	-0.009	-0.019	-0.019	-0.015	-0.009	-0.005	-0.027
11	-135.1	1.231	0.368	0.103	-0.081	-0.160	-0.014	0.034	0.038	0.035	0.029	0.021	0.008	-0.009	-0.020	-0.019	-0.015	-0.009	-0.005	-0.026
12	-125.0	1.232	0.362	0.097	-0.084	-0.158	-0.018	0.033	0.035	0.031	0.027	0.020	0.008	-0.013	-0.022	-0.025	-0.019	-0.011	-0.007	-0.029
13	-115.1	1.229	0.355	0.093	-0.085	-0.150	-0.019	0.033	0.032	0.031	0.026	0.019	0.007	-0.016	-0.028	-0.028	-0.019	-0.011	-0.007	-0.030
14	-105.0	1.229	0.350	0.090	-0.084	-0.144	-0.023	0.033	0.030	0.029	0.026	0.019	0.007	-0.018	-0.032	-0.032	-0.021	-0.011	-0.008	-0.031
15	-95.0	1.229	0.343	0.086	-0.084	-0.135	-0.024	0.033	0.027	0.027	0.024	0.017	0.007	-0.021	-0.037	-0.037	-0.023	-0.013	-0.007	-0.031
16	-85.0	1.233	0.341	0.085	-0.080	-0.125	-0.023	0.035	0.024	0.025	0.026	0.017	0.008	-0.023	-0.042	-0.040	-0.032	-0.023	-0.014	-0.030
17	-75.0	1.229	0.335	0.081	-0.080	-0.118	-0.024	0.033	0.018	0.020	0.023	0.015	0.008	-0.031	-0.051	-0.048	-0.036	-0.025	-0.015	-0.032
18	-65.0	1.230	0.332	0.081	-0.075	-0.104	-0.019	0.019	0.011	0.017	0.021	0.014	0.008	-0.038	-0.060	-0.055	-0.043	-0.033	-0.023	-0.031
19	-54.9	1.230	0.329	0.082	-0.069	-0.089	-0.013	0.006	0.003	0.013	0.021	0.016	0.008	-0.041	-0.070	-0.062	-0.054	0.012	0.002	-0.030
20	-45.1	1.232	0.329	0.084	-0.063	-0.074	-0.008	-0.008	-0.005	0.003	0.020	0.013	0.009	-0.046	-0.075	-0.068	-0.050	0.021	0.007	-0.028
21	-35.1	1.230	0.327	0.086	-0.057	-0.051	-0.003	-0.013	-0.020	0.003	0.017	0.007	0.015	0.007	-0.054	-0.093	-0.078	0.018	0.034	0.011
22	-25.1	1.229	0.327	0.088	-0.052	-0.029	-0.003	-0.045	-0.033	-0.003	0.015	0.007	0.015	0.007	-0.059	-0.103	-0.086	0.015	0.046	0.016
23	-15.1	1.210	0.327	0.090	-0.047	-0.006	-0.006	-0.058	-0.043	-0.011	0.010	0.009	0.013	0.011	-0.063	-0.112	-0.091	0.012	0.058	0.020
24	-5.0	1.231	0.328	0.093	-0.043	-0.015	-0.013	-0.060	-0.048	-0.015	0.003	0.010	0.013	0.011	-0.067	-0.115	-0.097	0.009	0.069	0.022
25	5.0	1.227	0.326	0.092	-0.042	-0.025	-0.022	-0.060	-0.047	-0.015	0.012	0.009	0.015	0.008	-0.122	-0.099	-0.087	0.007	0.074	0.023
26	15.1	1.221	0.328	0.094	-0.041	-0.027	-0.023	-0.067	-0.042	-0.015	0.013	0.008	0.015	0.006	-0.128	-0.097	-0.085	0.005	0.076	0.026
27	25.0	1.229	0.328	0.092	-0.041	-0.008	-0.017	-0.067	-0.037	-0.018	0.003	0.006	0.015	0.006	-0.137	-0.093	-0.088	0.008	0.067	0.027
28	35.0	1.230	0.327	0.088	-0.051	-0.024	-0.008	-0.044	-0.028	-0.009	0.007	0.005	0.015	0.011	-0.141	-0.100	-0.088	0.014	0.052	0.018
29	45.0	1.227	0.327	0.086	-0.055	-0.044	-0.001	-0.030	-0.018	-0.003	0.011	0.009	0.011	0.005	-0.155	-0.093	-0.080	0.008	0.041	0.015
30	54.9	1.230	0.329	0.086	-0.059	-0.062	-0.001	-0.019	-0.006	0.004	0.015	0.011	0.009	0.011	-0.168	-0.089	-0.071	0.017	0.031	0.012
31	64.9	1.227	0.329	0.082	-0.067	-0.083	-0.006	-0.003	0.003	0.007	0.015	0.015	0.011	0.008	-0.179	-0.065	-0.051	0.011	0.018	0.005
32	74.9	1.228	0.333	0.081	-0.071	-0.098	-0.007	0.010	0.010	0.012	0.017	0.012	0.009	0.008	-0.190	-0.049	-0.038	0.010	0.010	0.001
33	84.9	1.227	0.336	0.082	-0.073	-0.107	-0.005	0.010	0.015	0.015	0.018	0.012	0.008	0.006	-0.206	-0.036	-0.025	0.008	0.008	0.000
34	95.0	1.228	0.340	0.083	-0.076	-0.119	-0.003	0.021	0.019	0.019	0.020	0.014	0.008	0.006	-0.222	-0.022	-0.015	0.008	0.003	0.000
35	105.0	1.228	0.346	0.086	-0.079	-0.130	-0.001	0.021	0.023	0.022	0.022	0.015	0.008	0.006	-0.238	-0.008	-0.002	0.007	0.003	0.000
36	114.9	1.229	0.352	0.088	-0.082	-0.140	-0.002	0.022	0.026	0.024	0.023	0.015	0.008	0.006	-0.254	-0.002	-0.002	0.007	0.003	0.000
37	125.0	1.238	0.357	0.091	-0.082	-0.147	-0.003	0.031	0.029	0.027	0.024	0.016	0.008	0.006	-0.270	-0.002	-0.002	0.007	0.003	0.000
38	134.9	1.231	0.365	0.096	-0.083	-0.153	-0.004	0.031	0.032	0.029	0.025	0.018	0.008	0.006	-0.286	-0.002	-0.002	0.007	0.003	0.000
39	144.9	1.229	0.369	0.100	-0.082	-0.159	-0.005	0.031	0.033	0.030	0.027	0.019	0.008	0.006	-0.302	-0.002	-0.002	0.007	0.003	0.000
40	154.9	1.231	0.375	0.105	-0.079	-0.161	-0.003	0.033	0.037	0.034	0.028	0.021	0.008	0.006	-0.318	-0.002	-0.002	0.007	0.003	0.000
41	164.9	1.231	0.378	0.107	-0.076	-0.163	-0.004	0.031	0.037	0.033	0.028	0.021	0.008	0.006	-0.334	-0.002	-0.002	0.007	0.003	0.000
42	174.9	1.230	0.379	0.112	-0.070	-0.163	-0.003	0.032	0.038	0.034	0.029	0.021	0.007	0.006	-0.350	-0.002	-0.002	0.007	0.003	0.000

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0933	0.1110	0.1188	0.1665	0.1543	0.2220	0.2498
CNX	0.3479	0.2209	-0.0470	-2.5619	0.0895	1.4197	1.2146	0.7511	0.4114
CYX	0.0214	-0.0276	-0.0312	-0.3434	-0.2818	0.1361	0.1361	0.1622	0.1241
CAX	3.5922	1.1302	-0.6341	-0.3375	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	0.3838	0.3281	0.8974	1.5466	1.2135	-0.0336	-1.0775	-0.3977	-0.0303
CYX	0.0822	0.0560	0.1674	0.3088	0.1641	-0.0245	-0.2084	-0.0874	-0.0072
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.122	0.015	CA	0.164	CLM	-0.054	CLM	-0.030	



DATE 6-MAR-78 PROJECT NO PAIC-ROC

ARO, INC.  
AEDC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE  
TEST PLAN MACH 3.001 1453.2 835.5 501.0 976.5 82.9  
TC-532 145 0.926

DATE 3-17-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG 12 SURVEY 202  
ALFA 4.99  
PBAR 2047.2  
X 11.218  
Y 0.000  
Z -2.572

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
2	-174.6	1.230	0.381	0.113	-0.078	-0.169	-0.007	0.038	0.039	0.035	0.010	0.023	0.009	-0.005	-0.014	-0.010	-0.006	-0.003	-0.025		
3	-164.9	1.230	0.381	0.112	-0.079	-0.170	-0.008	0.039	0.042	0.037	0.012	0.024	0.011	-0.003	-0.010	-0.009	-0.003	-0.003	-0.024		
4	-155.0	1.231	0.378	0.108	-0.082	-0.176	-0.011	0.040	0.041	0.037	0.012	0.024	0.011	-0.003	-0.010	-0.011	-0.019	-0.003	-0.025		
5	-144.9	1.229	0.372	0.103	-0.087	-0.176	-0.016	0.038	0.039	0.035	0.010	0.022	0.008	-0.005	-0.013	-0.014	-0.012	-0.009	-0.008	-0.028	
6	-135.1	1.231	0.367	0.099	-0.088	-0.172	-0.018	0.039	0.039	0.036	0.010	0.022	0.008	-0.008	-0.015	-0.016	-0.013	-0.008	-0.008	-0.028	
7	-125.0	1.231	0.360	0.094	-0.091	-0.169	-0.021	0.038	0.037	0.034	0.010	0.022	0.019	0.006	-0.009	-0.010	-0.020	-0.016	-0.010	-0.030	
8	-115.1	1.229	0.353	0.088	-0.092	-0.164	-0.022	0.039	0.036	0.032	0.010	0.022	0.019	0.004	-0.011	-0.021	-0.023	-0.011	-0.008	-0.031	
9	-105.0	1.231	0.347	0.084	-0.093	-0.158	-0.024	0.041	0.035	0.031	0.010	0.022	0.019	0.003	-0.011	-0.023	-0.025	-0.019	-0.010	-0.008	-0.030
10	-95.0	1.230	0.339	0.078	-0.095	-0.151	-0.027	0.040	0.032	0.029	0.010	0.022	0.017	0.000	-0.011	-0.030	-0.030	-0.021	-0.011	-0.008	-0.032
11	-84.9	1.229	0.333	0.075	-0.093	-0.143	-0.026	0.041	0.029	0.027	0.010	0.022	0.017	-0.003	-0.028	-0.034	-0.034	-0.022	-0.009	-0.007	-0.032
12	-75.0	1.228	0.326	0.071	-0.092	-0.138	-0.024	0.040	0.026	0.025	0.010	0.022	0.015	-0.003	-0.028	-0.039	-0.038	-0.024	-0.008	-0.007	-0.032
13	-65.0	1.228	0.321	0.068	-0.089	-0.130	-0.021	0.039	0.023	0.022	0.010	0.022	0.013	-0.003	-0.027	-0.045	-0.044	-0.023	-0.005	-0.003	-0.032
14	-54.9	1.231	0.319	0.065	-0.085	-0.122	-0.015	0.040	0.021	0.021	0.010	0.022	0.014	-0.003	-0.030	-0.050	-0.048	-0.022	0.001	0.003	-0.030
15	-45.0	1.230	0.316	0.070	-0.080	-0.113	-0.008	0.039	0.018	0.020	0.010	0.022	0.015	-0.003	-0.033	-0.055	-0.049	-0.020	0.007	0.003	-0.028
16	-35.1	1.229	0.311	0.068	-0.078	-0.106	-0.004	0.016	0.009	0.016	0.010	0.022	0.012	-0.008	-0.038	-0.064	-0.056	-0.020	0.011	0.003	-0.029
17	-25.1	1.230	0.311	0.070	-0.073	-0.095	0.001	0.007	0.005	0.014	0.010	0.022	0.013	-0.008	-0.040	-0.068	-0.055	-0.017	0.018	0.003	-0.027
18	-15.0	1.230	0.309	0.070	-0.070	-0.086	0.004	-0.004	0.002	0.010	0.010	0.022	0.012	-0.008	-0.044	-0.073	-0.063	-0.014	0.024	0.003	-0.027
19	-5.0	1.228	0.307	0.070	-0.068	-0.077	0.003	-0.013	0.009	0.005	0.016	0.010	0.010	-0.010	-0.040	-0.079	-0.065	-0.011	0.031	0.010	-0.025
20	5.0	1.229	0.309	0.071	-0.065	-0.074	0.007	-0.012	0.009	0.005	0.016	0.011	-0.008	-0.040	-0.079	-0.065	-0.011	0.031	0.010	-0.025	
21	15.0	1.229	0.308	0.071	-0.065	-0.074	0.007	-0.012	0.008	0.004	0.016	0.011	-0.008	-0.040	-0.080	-0.068	-0.011	0.031	0.010	-0.025	
22	24.9	1.227	0.308	0.068	-0.068	-0.079	0.005	-0.012	0.006	0.005	0.016	0.010	-0.008	-0.040	-0.080	-0.068	-0.011	0.031	0.009	-0.026	
23	35.0	1.228	0.310	0.070	-0.069	-0.086	0.006	-0.011	0.000	0.009	0.019	0.012	-0.008	-0.040	-0.075	-0.061	-0.013	0.034	0.009	-0.026	
24	45.0	1.227	0.312	0.068	-0.074	-0.098	0.003	0.003	0.007	0.013	0.020	0.012	-0.008	-0.040	-0.069	-0.057	-0.016	0.017	0.003	-0.027	
25	54.9	1.227	0.313	0.068	-0.074	-0.107	-0.002	0.005	0.012	0.015	0.019	0.012	-0.008	-0.040	-0.065	-0.055	-0.019	0.011	0.003	-0.029	
26	64.9	1.226	0.317	0.068	-0.079	-0.118	-0.006	0.014	0.017	0.018	0.020	0.013	-0.007	-0.038	-0.057	-0.045	-0.021	0.004	0.003	-0.031	
27	74.9	1.228	0.321	0.069	-0.085	-0.125	-0.004	0.023	0.021	0.020	0.021	0.014	-0.004	-0.038	-0.052	-0.045	-0.020	0.002	0.003	-0.030	
28	84.9	1.229	0.327	0.071	-0.088	-0.134	-0.003	0.026	0.024	0.023	0.023	0.015	-0.004	-0.038	-0.047	-0.041	-0.022	0.002	0.003	-0.031	
29	95.0	1.228	0.333	0.073	-0.089	-0.142	-0.003	0.027	0.028	0.028	0.023	0.016	-0.002	-0.038	-0.041	-0.037	-0.021	0.003	0.003	-0.031	
30	105.0	1.228	0.340	0.075	-0.092	-0.149	-0.005	0.037	0.030	0.028	0.024	0.017	-0.001	-0.038	-0.036	-0.031	-0.021	0.008	0.003	-0.032	
31	114.9	1.226	0.347	0.081	-0.092	-0.156	-0.009	0.038	0.032	0.029	0.025	0.017	0.001	-0.038	-0.031	-0.029	-0.020	0.008	0.003	-0.032	
32	125.0	1.228	0.355	0.085	-0.092	-0.162	-0.011	0.037	0.033	0.030	0.026	0.018	0.002	-0.038	-0.026	-0.026	-0.019	0.009	0.003	-0.031	
33	134.9	1.231	0.364	0.092	-0.091	-0.167	-0.012	0.038	0.036	0.032	0.028	0.020	0.005	-0.038	-0.021	-0.028	-0.021	0.016	0.008	-0.030	
34	144.9	1.227	0.368	0.095	-0.090	-0.172	-0.013	0.039	0.035	0.033	0.027	0.020	0.006	-0.038	-0.015	-0.020	-0.019	0.016	0.009	-0.029	
35	154.9	1.230	0.375	0.101	-0.087	-0.174	-0.012	0.039	0.038	0.034	0.029	0.022	0.008	-0.038	-0.008	-0.016	-0.016	0.016	0.008	-0.028	
36	164.9	1.232	0.381	0.107	-0.083	-0.175	-0.008	0.039	0.040	0.037	0.031	0.024	0.010	-0.038	-0.012	-0.012	-0.011	0.010	0.003	-0.025	
37	174.9	1.230	0.381	0.110	-0.082	-0.176	-0.008	0.038	0.040	0.036	0.031	0.023	0.010	-0.038	-0.011	-0.011	-0.010	0.006	0.003	-0.026	

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.0278	0.0355	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.4801	0.4379	-0.2211	-1.4372	-0.2340	0.6867	0.6836	0.4518	0.2029
CY	0.0386	0.0589	-0.0537	-0.1923	-0.2709	0.2581	0.1104	0.0910	0.0428
CAX	3.4996	1.0010	-0.7542	-0.4494	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	0.1934	0.3055	0.6671	1.0466	0.8330	0.6329	-0.5103	-0.2334	-0.0006
CY	0.0347	0.0484	0.1271	0.2209	0.1275	-0.0100	-0.1110	-0.0360	-0.0038
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CLM 115 CLM 115 CLM -0.13 CLM -0.13

DATE 8-MAR-78 PROJECT NO P41C-N0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEX10-6 PT

TC-512 146 0.926 3.003 1454.1 835.6 501.6 976.9 82.9

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY ALPHA PRAR X Y Z

5.00 12 203 4.09 2047.6 11.218 0.000 -2.947

PNT DPMT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

-174.9 1.229 0.381 0.110-0.084-0.183-0.011 0.033 0.040 0.037 0.032 0.025 0.012-0.001-0.008-0.008-0.005-0.003-0.026

3 -164.9 1.230 0.381 0.109-0.087-0.189-0.012 0.033 0.041 0.038 0.033 0.026 0.014 0.002-0.004-0.003-0.007-0.004-0.003-0.025

4 -155.0 1.230 0.378 0.105-0.089-0.190-0.015 0.036 0.042 0.039 0.033 0.026 0.014 0.002-0.003-0.003-0.007-0.005-0.003-0.025

5 -145.0 1.231 0.372 0.099-0.094-0.191-0.021 0.034 0.041 0.037 0.031 0.024 0.011 0.000-0.006-0.008-0.009-0.005-0.003-0.028

6 -135.1 1.230 0.367 0.094-0.097-0.189-0.025 0.035 0.040 0.037 0.030 0.023 0.011-0.002-0.008-0.011-0.013-0.010-0.008-0.031

7 -125.0 1.229 0.356 0.087-0.100-0.188-0.028 0.045 0.039 0.036 0.030 0.022 0.009-0.004-0.011-0.013-0.010-0.008-0.031

8 -115.1 1.230 0.350 0.082-0.103-0.173-0.029 0.045 0.039 0.034 0.029 0.021 0.008-0.005-0.013-0.015-0.015-0.011-0.009-0.032

9 -105.0 1.228 0.340 0.077-0.105-0.173-0.032 0.045 0.038 0.034 0.028 0.021 0.006-0.007-0.019-0.021-0.017-0.012-0.009-0.033

10 -95.0 1.230 0.333 0.071-0.105-0.165-0.034 0.046 0.038 0.034 0.028 0.021 0.005-0.009-0.019-0.021-0.017-0.012-0.009-0.032

11 -85.0 1.231 0.325 0.065-0.107-0.160-0.035 0.046 0.036 0.031 0.027 0.020 0.004-0.012-0.023-0.025-0.019-0.012-0.010-0.033

12 -75.0 1.230 0.317 0.060-0.107-0.154-0.032 0.046 0.035 0.031 0.027 0.018 0.002-0.014-0.026-0.028-0.020-0.011-0.009-0.033

13 -65.0 1.230 0.310 0.058-0.107-0.150-0.030 0.046 0.033 0.030 0.025 0.018 0.000-0.017-0.030-0.031-0.021-0.010-0.008-0.033

14 -54.9 1.227 0.304 0.053-0.103-0.140-0.025 0.047 0.031 0.029 0.025 0.016-0.001-0.020-0.034-0.033-0.021-0.009-0.007-0.032

15 -45.1 1.230 0.301 0.051-0.103-0.142-0.019 0.048 0.030 0.028 0.026 0.018-0.001-0.021-0.036-0.033-0.020-0.004-0.005-0.031

16 -35.1 1.229 0.296 0.049-0.101-0.136-0.015 0.046 0.027 0.025 0.023 0.015-0.003-0.025-0.042-0.035-0.021-0.004-0.005-0.032

17 -25.1 1.229 0.293 0.050-0.098-0.134-0.008 0.048 0.026 0.025 0.024 0.017-0.002-0.025-0.043-0.035-0.018 0.001-0.002-0.032

18 -15.0 1.229 0.291 0.050-0.096-0.134-0.004 0.048 0.024 0.024 0.024 0.016-0.002-0.027-0.045-0.041-0.017 0.003-0.000-0.032

19 -5.0 1.229 0.290 0.049-0.095-0.130-0.000 0.046 0.022 0.022 0.023 0.015-0.004-0.029-0.049-0.041-0.018 0.004-0.001-0.030

20 5.0 1.230 0.289 0.049-0.095-0.130-0.000 0.046 0.020 0.021 0.024 0.015-0.004-0.030-0.050-0.041-0.017 0.005 0.000-0.030

21 15.0 1.226 0.289 0.048-0.095-0.130-0.002 0.046 0.020 0.021 0.023 0.015-0.005-0.031-0.050-0.041-0.017 0.004-0.001-0.030

22 25.0 1.229 0.291 0.048-0.097-0.131-0.003 0.046 0.022 0.022 0.024 0.015-0.005-0.029-0.048-0.042-0.017 0.004 0.000-0.030

23 35.0 1.226 0.292 0.049-0.097-0.131-0.006 0.046 0.022 0.024 0.024 0.016-0.003-0.028-0.046-0.042-0.017 0.002 0.001-0.030

24 45.0 1.226 0.295 0.048-0.100-0.137-0.011 0.037 0.026 0.024 0.023 0.015-0.004-0.026-0.044-0.041-0.019-0.031-0.003-0.031

25 54.9 1.227 0.299 0.050-0.102-0.142-0.014 0.038 0.029 0.026 0.024 0.016-0.002-0.024-0.041-0.031-0.019-0.003-0.005-0.031

26 64.9 1.227 0.304 0.053-0.104-0.146-0.014 0.040 0.032 0.027 0.025 0.016-0.001-0.021-0.036-0.031-0.019-0.005-0.005-0.032

27 74.9 1.228 0.310 0.054-0.106-0.150-0.014 0.039 0.030 0.025 0.025 0.017-0.000-0.020-0.034-0.033-0.020-0.008-0.007-0.033

28 84.9 1.228 0.317 0.057-0.107-0.153-0.015 0.040 0.033 0.030 0.025 0.017 0.001-0.017-0.031-0.022-0.020-0.009-0.008-0.034

29 95.0 1.227 0.325 0.062-0.108-0.164-0.018 0.041 0.035 0.030 0.026 0.018 0.002-0.015-0.026-0.026-0.020-0.010-0.009-0.034

30 105.0 1.229 0.334 0.067-0.108-0.170-0.021 0.040 0.036 0.032 0.026 0.018 0.004-0.012-0.023-0.031-0.019-0.010-0.010-0.034

31 114.9 1.227 0.343 0.072-0.106-0.178-0.023 0.040 0.037 0.033 0.027 0.019 0.004-0.010-0.020-0.030-0.021-0.018-0.012-0.010-0.034

32 125.0 1.230 0.352 0.078-0.104-0.178-0.023 0.041 0.039 0.035 0.028 0.022 0.008-0.007-0.016-0.016-0.015-0.010-0.010-0.034

33 134.9 1.230 0.359 0.084-0.102-0.181-0.024 0.041 0.039 0.035 0.029 0.022 0.008-0.005-0.014-0.014-0.015-0.010-0.010-0.034

34 144.9 1.228 0.368 0.089-0.100-0.187-0.024 0.040 0.039 0.035 0.029 0.022 0.009-0.004-0.011-0.011-0.015-0.010-0.010-0.034

35 154.9 1.230 0.375 0.096-0.096-0.189-0.021 0.040 0.041 0.037 0.031 0.024 0.011 0.000-0.007-0.008-0.010-0.006-0.005-0.032

36 164.9 1.231 0.379 0.101-0.094-0.192-0.017 0.040 0.041 0.037 0.032 0.025 0.012 0.001-0.006-0.007-0.008-0.006-0.005-0.032

37 174.9 1.229 0.382 0.108-0.088-0.190-0.012 0.042 0.042 0.039 0.033 0.027 0.015 0.003-0.003-0.006-0.006-0.004-0.002-0.035

ORIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CXK 0.6060 0.6397 0.6754 0.7110 0.7467 0.7824 0.8181 0.8538 0.8895

CYK 0.0493 0.0982 0.1471 0.1960 0.2449 0.2938 0.3427 0.3916 0.4405

CAX 3.4101 0.8580 -0.9069 -0.9552 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CXK 0.1556 0.2732 0.3856 0.4980 0.6104 0.7228 0.8352 0.9476 1.0600

CYK 0.0331 0.0447 0.0562 0.0677 0.0792 0.0907 0.1022 0.1137 0.1252

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CW 0.091 CY 0.014 CA 0.138 CLM 0.014 CLW -0.003





DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH SEX10-6 PT P Q V1 TT DATE AEDC PROPULSION WIND TUNNEL

TC-532 128 0.950 2.997 1434.3 802.8 506.7 996.9 81.7 2-16-78 TRANSONIC 4T

ALFA	CONFIG	SURVEY	ALFAS	PRAR	X	Y	Z													
0.00	12	201	0.02	2047.4	11.218	0.000	-2.297													
PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
174.9	1.244	0.289	0.008	-0.197	-0.345	-0.234	-0.003	-0.069	-0.088	-0.078	-0.077	-0.090	-0.101	-0.120	-0.159	-0.186	-0.170	-0.135	-0.119	
174.9	1.242	0.288	0.004	-0.200	-0.352	-0.243	-0.003	-0.069	-0.088	-0.078	-0.077	-0.091	-0.102	-0.120	-0.158	-0.186	-0.181	-0.138	-0.124	
174.9	1.241	0.289	0.007	-0.198	-0.354	-0.246	-0.003	-0.070	-0.088	-0.077	-0.077	-0.091	-0.101	-0.126	-0.157	-0.184	-0.181	-0.138	-0.122	
174.9	1.243	0.291	0.007	-0.199	-0.360	-0.250	-0.004	-0.074	-0.091	-0.078	-0.078	-0.093	-0.103	-0.128	-0.161	-0.187	-0.187	-0.140	-0.128	
174.9	1.241	0.293	0.009	-0.198	-0.362	-0.252	-0.005	-0.079	-0.095	-0.078	-0.078	-0.093	-0.104	-0.130	-0.164	-0.190	-0.181	-0.139	-0.126	
174.9	1.244	0.297	0.014	-0.194	-0.364	-0.248	-0.004	-0.081	-0.097	-0.078	-0.078	-0.091	-0.103	-0.131	-0.167	-0.193	-0.178	-0.138	-0.128	
174.9	1.240	0.298	0.014	-0.193	-0.363	-0.243	-0.017	-0.089	-0.105	-0.081	-0.077	-0.093	-0.107	-0.136	-0.173	-0.199	-0.178	-0.139	-0.134	
174.9	1.242	0.303	0.019	-0.189	-0.363	-0.229	-0.028	-0.098	-0.109	-0.081	-0.078	-0.095	-0.108	-0.141	-0.181	-0.205	-0.180	-0.136	-0.126	
174.9	1.242	0.307	0.022	-0.187	-0.358	-0.219	-0.041	-0.106	-0.115	-0.084	-0.080	-0.097	-0.111	-0.148	-0.190	-0.212	-0.181	-0.135	-0.129	
174.9	1.241	0.310	0.028	-0.183	-0.348	-0.206	-0.056	-0.116	-0.120	-0.086	-0.081	-0.100	-0.114	-0.148	-0.190	-0.218	-0.181	-0.135	-0.122	
174.9	1.243	0.317	0.033	-0.178	-0.333	-0.187	-0.072	-0.128	-0.128	-0.086	-0.081	-0.101	-0.117	-0.145	-0.185	-0.213	-0.177	-0.139	-0.127	
174.9	1.240	0.319	0.036	-0.174	-0.335	-0.172	-0.100	-0.131	-0.131	-0.092	-0.082	-0.104	-0.122	-0.150	-0.187	-0.217	-0.179	-0.140	-0.123	
174.9	1.242	0.325	0.042	-0.168	-0.288	-0.136	-0.128	-0.154	-0.159	-0.098	-0.081	-0.108	-0.126	-0.150	-0.184	-0.214	-0.176	-0.140	-0.123	
174.9	1.242	0.328	0.046	-0.164	-0.263	-0.095	-0.151	-0.167	-0.165	-0.101	-0.081	-0.108	-0.129	-0.150	-0.184	-0.214	-0.176	-0.140	-0.123	
174.9	1.242	0.331	0.052	-0.159	-0.233	-0.080	-0.175	-0.176	-0.173	-0.107	-0.082	-0.108	-0.132	-0.150	-0.184	-0.214	-0.176	-0.140	-0.123	
174.9	1.244	0.334	0.056	-0.156	-0.211	-0.084	-0.200	-0.186	-0.160	-0.117	-0.087	-0.111	-0.136	-0.150	-0.184	-0.214	-0.176	-0.140	-0.123	
174.9	1.243	0.335	0.057	-0.153	-0.200	-0.090	-0.226	-0.192	-0.168	-0.120	-0.096	-0.111	-0.141	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.242	0.336	0.061	-0.150	-0.192	-0.094	-0.233	-0.190	-0.162	-0.122	-0.100	-0.115	-0.140	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.243	0.337	0.063	-0.149	-0.187	-0.099	-0.240	-0.188	-0.175	-0.140	-0.105	-0.115	-0.140	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.243	0.336	0.060	-0.151	-0.180	-0.102	-0.249	-0.184	-0.179	-0.140	-0.106	-0.111	-0.140	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.241	0.332	0.056	-0.154	-0.195	-0.095	-0.248	-0.177	-0.163	-0.140	-0.099	-0.114	-0.139	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.241	0.331	0.052	-0.157	-0.213	-0.084	-0.218	-0.166	-0.156	-0.127	-0.087	-0.108	-0.133	-0.154	-0.188	-0.218	-0.181	-0.140	-0.123	
174.9	1.243	0.332	0.052	-0.156	-0.213	-0.072	-0.198	-0.146	-0.167	-0.119	-0.081	-0.101	-0.125	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.244	0.327	0.047	-0.162	-0.263	-0.099	-0.169	-0.138	-0.155	-0.111	-0.083	-0.098	-0.121	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.247	0.324	0.044	-0.166	-0.283	-0.132	-0.154	-0.128	-0.144	-0.107	-0.084	-0.098	-0.118	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.244	0.318	0.037	-0.171	-0.309	-0.174	-0.118	-0.113	-0.132	-0.098	-0.084	-0.097	-0.115	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.244	0.317	0.036	-0.172	-0.315	-0.181	-0.108	-0.108	-0.126	-0.098	-0.083	-0.097	-0.112	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.245	0.312	0.032	-0.175	-0.330	-0.201	-0.081	-0.095	-0.119	-0.093	-0.081	-0.098	-0.110	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.244	0.309	0.028	-0.179	-0.338	-0.216	-0.065	-0.087	-0.113	-0.091	-0.079	-0.095	-0.109	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.247	0.305	0.022	-0.183	-0.348	-0.233	-0.045	-0.079	-0.104	-0.081	-0.079	-0.094	-0.107	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.247	0.302	0.019	-0.187	-0.348	-0.246	-0.032	-0.073	-0.099	-0.088	-0.077	-0.092	-0.105	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.246	0.299	0.016	-0.189	-0.351	-0.253	-0.029	-0.069	-0.096	-0.088	-0.077	-0.091	-0.103	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.241	0.294	0.012	-0.192	-0.353	-0.257	-0.021	-0.067	-0.094	-0.088	-0.077	-0.091	-0.102	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.245	0.294	0.010	-0.193	-0.353	-0.257	-0.010	-0.064	-0.093	-0.088	-0.075	-0.088	-0.101	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.243	0.292	0.008	-0.195	-0.353	-0.256	-0.011	-0.063	-0.090	-0.088	-0.075	-0.088	-0.100	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	
174.9	1.242	0.291	0.008	-0.196	-0.352	-0.251	-0.010	-0.063	-0.087	-0.078	-0.075	-0.088	-0.100	-0.146	-0.180	-0.210	-0.173	-0.137	-0.123	

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1655	0.1943	0.2223	0.2598
CXK	-0.3083	-0.5936	-0.8549	-1.24815	-2.2821	3.7136	1.9711	1.3876	0.8134
CYK	-0.0350	-0.0987	-0.1370	-0.4310	-0.7504	0.7504	-0.2243	0.1597	0.2136
CAX	3.2237	0.3785	-1.6086	-1.0044	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	0.2866	0.3685	0.6008	1.9620	2.825	1.0267	-2.0416	-0.7614	-0.4622
CYK	0.0373	-0.0488	-0.0228	0.2522	0.2893	0.1280	-0.3511	-0.1101	0.4311
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CLW	0.102	0.023	0.088	-0.222	-0.105	-0.105	-0.105	-0.105	-0.105



DATE 6-MAR-78 PROJECT NO P41C-N0C

APD, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REK10-6 PT P 800.7 508.6 999.8 81.9

TC-532 129 9.953 3.001 1435.4

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL TRANSONIC 47

ALPHA CONFIG SURVEY 202 2047.3 11.218 0.000 -2.572

PNT	DPMI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.245	0.291	0.008	-0.195	-0.162	-0.247	0.304	-0.051	-0.079	-0.074	-0.071	-0.084	-0.096	-0.117	-0.146	-0.177	-0.182	-0.146	-0.149
3	-164.9	1.246	0.290	0.008	-0.195	-0.168	-0.252	0.301	-0.050	-0.078	-0.073	-0.072	-0.085	-0.095	-0.113	-0.144	-0.174	-0.183	-0.148	-0.147
4	-154.9	1.244	0.292	0.004	-0.191	-0.168	-0.251	0.300	-0.052	-0.078	-0.072	-0.070	-0.084	-0.093	-0.111	-0.143	-0.172	-0.182	-0.146	-0.145
5	-144.9	1.243	0.293	0.010	-0.195	-0.170	-0.253	0.300	-0.055	-0.085	-0.071	-0.070	-0.084	-0.093	-0.111	-0.144	-0.173	-0.184	-0.144	-0.145
6	-135.1	1.244	0.295	0.012	-0.195	-0.174	-0.256	0.304	-0.059	-0.085	-0.074	-0.074	-0.084	-0.095	-0.117	-0.147	-0.176	-0.185	-0.145	-0.148
7	-125.1	1.246	0.298	0.015	-0.192	-0.174	-0.256	0.305	-0.064	-0.088	-0.074	-0.070	-0.083	-0.095	-0.117	-0.150	-0.180	-0.186	-0.141	-0.147
8	-115.1	1.244	0.300	0.016	-0.191	-0.176	-0.254	0.304	-0.064	-0.088	-0.077	-0.072	-0.086	-0.097	-0.123	-0.157	-0.185	-0.188	-0.142	-0.151
9	-105.0	1.242	0.304	0.019	-0.187	-0.175	-0.248	0.311	-0.077	-0.098	-0.078	-0.075	-0.088	-0.100	-0.126	-0.164	-0.192	-0.188	-0.140	-0.151
10	-95.0	1.243	0.308	0.024	-0.184	-0.172	-0.247	0.312	-0.084	-0.104	-0.080	-0.076	-0.091	-0.102	-0.130	-0.171	-0.199	-0.183	-0.136	-0.151
11	-85.0	1.242	0.311	0.027	-0.181	-0.167	-0.244	0.310	-0.091	-0.108	-0.082	-0.078	-0.092	-0.104	-0.136	-0.180	-0.206	-0.176	-0.135	-0.151
12	-74.9	1.243	0.315	0.032	-0.177	-0.161	-0.243	0.305	-0.099	-0.118	-0.086	-0.077	-0.095	-0.106	-0.140	-0.190	-0.216	-0.182	-0.130	-0.146
13	-65.0	1.245	0.321	0.038	-0.171	-0.151	-0.240	0.307	-0.107	-0.119	-0.086	-0.077	-0.095	-0.107	-0.140	-0.202	-0.228	-0.193	-0.143	-0.146
14	-54.9	1.245	0.324	0.041	-0.168	-0.144	-0.237	0.309	-0.117	-0.126	-0.091	-0.079	-0.098	-0.111	-0.150	-0.215	-0.242	-0.210	-0.153	-0.144
15	-45.1	1.242	0.325	0.043	-0.166	-0.138	-0.235	0.310	-0.121	-0.130	-0.095	-0.080	-0.099	-0.113	-0.160	-0.224	-0.249	-0.220	-0.151	-0.143
16	-35.1	1.245	0.329	0.048	-0.161	-0.127	-0.229	0.310	-0.126	-0.135	-0.098	-0.079	-0.099	-0.114	-0.173	-0.234	-0.259	-0.230	-0.155	-0.137
17	-25.1	1.245	0.332	0.053	-0.157	-0.116	-0.216	0.310	-0.130	-0.140	-0.105	-0.078	-0.099	-0.117	-0.180	-0.245	-0.271	-0.242	-0.160	-0.136
18	-15.1	1.244	0.333	0.056	-0.155	-0.108	-0.212	0.310	-0.133	-0.143	-0.112	-0.078	-0.100	-0.119	-0.190	-0.253	-0.279	-0.250	-0.160	-0.135
19	-5.0	1.243	0.333	0.057	-0.154	-0.105	-0.210	0.310	-0.134	-0.143	-0.116	-0.078	-0.101	-0.120	-0.195	-0.258	-0.284	-0.255	-0.160	-0.135
20	5.0	1.242	0.333	0.057	-0.153	-0.101	-0.209	0.310	-0.133	-0.141	-0.117	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
21	15.0	1.243	0.332	0.056	-0.153	-0.100	-0.209	0.310	-0.133	-0.141	-0.116	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
22	25.0	1.244	0.332	0.054	-0.154	-0.101	-0.209	0.310	-0.133	-0.141	-0.115	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
23	35.0	1.246	0.330	0.052	-0.155	-0.100	-0.209	0.310	-0.133	-0.141	-0.115	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
24	45.0	1.244	0.326	0.047	-0.162	-0.118	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
25	55.0	1.244	0.322	0.041	-0.167	-0.123	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
26	64.9	1.244	0.319	0.039	-0.170	-0.132	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
27	74.9	1.245	0.316	0.034	-0.173	-0.135	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
28	84.9	1.247	0.313	0.031	-0.177	-0.136	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
29	95.0	1.244	0.309	0.028	-0.179	-0.136	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
30	105.0	1.247	0.306	0.024	-0.183	-0.135	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
31	115.0	1.245	0.302	0.019	-0.187	-0.136	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
32	125.0	1.246	0.300	0.017	-0.188	-0.137	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
33	134.9	1.245	0.296	0.013	-0.193	-0.136	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
34	144.9	1.244	0.292	0.010	-0.196	-0.138	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
35	154.9	1.245	0.291	0.008	-0.198	-0.138	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
36	164.9	1.244	0.290	0.006	-0.198	-0.137	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135
37	174.9	1.244	0.289	0.006	-0.199	-0.136	-0.209	0.310	-0.133	-0.141	-0.114	-0.079	-0.102	-0.122	-0.198	-0.260	-0.286	-0.256	-0.160	-0.135

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0933	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CYX	-0.2865	-0.5544	-0.6311	-0.9828	-2.9111	2.7862	1.3274	1.1739	0.6262
CYX	-0.0255	-0.0255	-0.0255	-0.1970	-0.0985	0.5217	-0.0486	0.0216	0.1170
CAX	3.2100	0.3583	-1.6193	-1.1555	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CYX	0.1526	0.2836	0.4014	1.2630	1.8140	1.3788	-1.6355	-0.5975	-0.1841
CYX	0.0249	0.0389	0.0335	0.2229	0.3014	0.2378	-0.2568	-0.1457	-0.0284
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.0889	0.018	0.083	-0.237	CLW	-0.010	CLW	CLW	CLW

DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELLSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEXIO-6 PT

TC-332 130 0.952 3.003 1437.1 802.4 508.8 999.1 82.0

DATE 2-16-78 AEDC PROPELLSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 203  
0.00 12

DATE 2-16-78 AEDC PROPELLSION WIND TUNNEL  
TRANSONIC 47

PWT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-174.9	1.245	0.289	0.007	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-164.9	1.244	0.289	0.006	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-155.0	1.243	0.290	0.006	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-144.9	1.244	0.292	0.008	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-135.1	1.243	0.293	0.010	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-125.0	1.244	0.297	0.013	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-115.1	1.245	0.299	0.016	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-105.0	1.243	0.302	0.018	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-95.0	1.244	0.306	0.023	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-85.0	1.245	0.311	0.026	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-74.9	1.243	0.312	0.029	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-65.0	1.244	0.317	0.033	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-54.9	1.244	0.320	0.037	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-45.1	1.243	0.322	0.041	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-35.1	1.244	0.325	0.045	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-25.1	1.245	0.327	0.048	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-15.0	1.244	0.329	0.051	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
-5.0	1.245	0.330	0.053	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
5.0	1.246	0.330	0.053	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
15.0	1.244	0.328	0.050	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
25.0	1.244	0.327	0.049	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
35.0	1.247	0.326	0.047	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
45.0	1.245	0.322	0.041	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
54.9	1.244	0.319	0.038	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
64.9	1.244	0.317	0.034	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
74.9	1.244	0.313	0.031	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
84.9	1.244	0.310	0.027	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
95.0	1.246	0.307	0.024	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
105.0	1.245	0.303	0.020	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
115.0	1.243	0.300	0.017	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
125.0	1.243	0.296	0.013	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
134.9	1.246	0.295	0.010	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
144.9	1.244	0.291	0.007	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
154.9	1.246	0.290	0.006	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
164.9	1.245	0.289	0.004	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068
174.9	1.242	0.287	0.003	-0.149	-0.375	-0.256	0.009	-0.034	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068	-0.068

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0378	0.0555	0.0333	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	-0.2171	-0.5216	-0.5947	-0.5937	-2.1394	2.0426	0.8831	0.2267	0.3326
CY	-0.0072	-0.0113	-0.0515	-0.0930	-0.0331	0.2507	0.0072	-0.0311	0.0803
CAX	3.1841	0.3211	-1.6433	-1.2186	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	0.1046	0.2193	0.3241	0.4288	1.3816	1.1748	-0.3316	-0.7041	0.0062
CY	0.0370	0.0522	0.0459	0.1333	0.2206	0.3532	-0.0492	-0.1537	-0.0004
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.081	0.018	0.078	0.079	0.079	0.079	0.079	0.079	0.079
CLW	-0.081	-0.018	-0.078	-0.079	-0.079	-0.079	-0.079	-0.079	-0.079
CLW	-0.081	-0.018	-0.078	-0.079	-0.079	-0.079	-0.079	-0.079	-0.079
CLW	-0.081	-0.018	-0.078	-0.079	-0.079	-0.079	-0.079	-0.079	-0.079



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PAST MACH

RE10-6

PT 1437.7

P 801.3

Q 509.8

VI 1000.5

IT 82.0

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA	CONFIG	SURVEY	ALFAS	PHAS	X	Y	Z
0.00	12	204	0.02	2047.1	12.718	0.000	-2.947

PNT	DPKI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.243	0.273	-0.014	-0.219	-0.425	-0.346	-0.258	-0.178	-0.144	-0.124	-0.134	-0.166	-0.185	-0.142	-0.022	0.002	0.012	0.016	0.007
3	-165.0	1.245	0.275	-0.013	-0.220	-0.426	-0.348	-0.257	-0.178	-0.145	-0.124	-0.135	-0.167	-0.185	-0.146	-0.020	0.004	0.013	0.017	0.006
4	-155.0	1.244	0.276	-0.012	-0.219	-0.426	-0.348	-0.256	-0.178	-0.145	-0.124	-0.136	-0.169	-0.185	-0.140	-0.021	0.004	0.014	0.018	0.006
5	-144.9	1.245	0.279	-0.011	-0.219	-0.426	-0.351	-0.257	-0.183	-0.149	-0.126	-0.140	-0.174	-0.188	-0.140	-0.021	0.004	0.013	0.017	0.006
6	-135.1	1.242	0.281	-0.008	-0.217	-0.425	-0.352	-0.255	-0.185	-0.152	-0.126	-0.144	-0.179	-0.189	-0.137	-0.024	0.003	0.013	0.017	0.005
7	-125.1	1.246	0.286	-0.004	-0.216	-0.425	-0.354	-0.254	-0.188	-0.152	-0.126	-0.148	-0.184	-0.190	-0.131	-0.022	0.004	0.014	0.019	0.004
8	-115.1	1.243	0.288	-0.003	-0.215	-0.427	-0.359	-0.255	-0.189	-0.156	-0.129	-0.156	-0.193	-0.195	-0.131	-0.026	0.003	0.012	0.018	0.006
9	-104.9	1.243	0.294	-0.000	-0.214	-0.428	-0.362	-0.254	-0.194	-0.157	-0.130	-0.162	-0.199	-0.194	-0.123	-0.023	0.003	0.014	0.019	0.004
10	-95.0	1.245	0.300	0.003	-0.213	-0.428	-0.367	-0.255	-0.194	-0.159	-0.133	-0.171	-0.208	-0.194	-0.120	-0.024	0.003	0.015	0.019	0.003
11	-85.0	1.243	0.304	0.006	-0.213	-0.428	-0.371	-0.267	-0.201	-0.162	-0.139	-0.182	-0.216	-0.188	-0.114	-0.024	0.002	0.014	0.019	0.004
12	-74.9	1.245	0.312	0.011	-0.210	-0.429	-0.375	-0.265	-0.208	-0.163	-0.144	-0.193	-0.222	-0.172	-0.104	-0.024	0.004	0.016	0.021	0.002
13	-65.0	1.245	0.316	0.015	-0.211	-0.432	-0.380	-0.277	-0.222	-0.166	-0.153	-0.206	-0.231	-0.161	-0.104	-0.024	0.002	0.015	0.019	0.003
14	-54.9	1.243	0.323	0.019	-0.209	-0.432	-0.384	-0.276	-0.233	-0.165	-0.151	-0.218	-0.239	-0.135	-0.097	-0.023	0.003	0.015	0.020	0.003
15	-45.1	1.245	0.329	0.025	-0.206	-0.432	-0.384	-0.283	-0.246	-0.164	-0.159	-0.226	-0.244	-0.123	-0.091	-0.021	0.004	0.017	0.021	0.001
16	-35.1	1.246	0.336	0.031	-0.203	-0.433	-0.384	-0.281	-0.247	-0.164	-0.177	-0.233	-0.251	-0.108	-0.083	-0.020	0.005	0.018	0.023	0.000
17	-25.1	1.246	0.340	0.034	-0.203	-0.433	-0.381	-0.290	-0.237	-0.165	-0.185	-0.243	-0.257	-0.103	-0.086	-0.023	0.003	0.017	0.023	0.001
18	-15.0	1.244	0.342	0.038	-0.201	-0.433	-0.378	-0.290	-0.222	-0.166	-0.191	-0.248	-0.262	-0.097	-0.084	-0.025	0.003	0.017	0.023	0.001
19	-5.0	1.244	0.344	0.040	-0.199	-0.433	-0.368	-0.276	-0.215	-0.168	-0.197	-0.251	-0.265	-0.093	-0.082	-0.024	0.003	0.016	0.021	0.001
20	5.0	1.245	0.345	0.046	-0.198	-0.434	-0.365	-0.276	-0.210	-0.170	-0.198	-0.253	-0.265	-0.086	-0.081	-0.025	0.002	0.017	0.022	0.001
21	15.0	1.245	0.343	0.044	-0.197	-0.433	-0.362	-0.276	-0.211	-0.170	-0.197	-0.253	-0.265	-0.083	-0.081	-0.024	0.002	0.016	0.022	0.001
22	25.0	1.247	0.341	0.041	-0.198	-0.433	-0.371	-0.276	-0.215	-0.170	-0.197	-0.251	-0.262	-0.085	-0.082	-0.024	0.003	0.017	0.021	0.000
23	35.0	1.243	0.336	0.036	-0.201	-0.433	-0.378	-0.287	-0.228	-0.171	-0.193	-0.247	-0.260	-0.100	-0.085	-0.025	0.002	0.016	0.021	0.002
24	45.0	1.245	0.331	0.031	-0.203	-0.434	-0.384	-0.287	-0.243	-0.170	-0.181	-0.240	-0.254	-0.108	-0.085	-0.023	0.002	0.016	0.021	0.002
25	54.9	1.246	0.326	0.026	-0.204	-0.433	-0.387	-0.286	-0.248	-0.168	-0.172	-0.230	-0.247	-0.115	-0.088	-0.023	0.003	0.016	0.021	0.002
26	64.9	1.246	0.319	0.021	-0.207	-0.432	-0.385	-0.285	-0.255	-0.167	-0.163	-0.230	-0.249	-0.134	-0.094	-0.024	0.002	0.015	0.020	0.003
27	74.9	1.244	0.313	0.016	-0.208	-0.439	-0.382	-0.284	-0.221	-0.164	-0.151	-0.207	-0.211	-0.156	-0.100	-0.023	0.003	0.016	0.020	0.002
28	84.9	1.248	0.309	0.013	-0.209	-0.439	-0.379	-0.284	-0.218	-0.164	-0.147	-0.200	-0.227	-0.170	-0.104	-0.023	0.004	0.016	0.021	0.003
29	95.0	1.245	0.302	0.009	-0.210	-0.438	-0.375	-0.283	-0.208	-0.162	-0.140	-0.189	-0.221	-0.184	-0.111	-0.025	0.002	0.015	0.019	0.003
30	105.0	1.248	0.297	0.005	-0.212	-0.437	-0.370	-0.282	-0.199	-0.158	-0.134	-0.178	-0.213	-0.194	-0.118	-0.026	0.003	0.014	0.020	0.003
31	115.0	1.246	0.292	0.000	-0.214	-0.437	-0.365	-0.281	-0.192	-0.155	-0.130	-0.169	-0.204	-0.194	-0.121	-0.025	0.003	0.014	0.020	0.004
32	125.0	1.247	0.288	-0.003	-0.214	-0.435	-0.360	-0.280	-0.187	-0.152	-0.126	-0.159	-0.195	-0.198	-0.125	-0.024	0.003	0.014	0.019	0.004
33	134.9	1.244	0.282	-0.007	-0.218	-0.437	-0.353	-0.281	-0.185	-0.150	-0.127	-0.153	-0.189	-0.194	-0.129	-0.025	0.003	0.013	0.018	0.005
34	144.9	1.245	0.280	-0.009	-0.217	-0.426	-0.354	-0.270	-0.180	-0.146	-0.124	-0.147	-0.180	-0.193	-0.129	-0.022	0.003	0.012	0.017	0.005
35	154.9	1.245	0.276	-0.012	-0.220	-0.427	-0.354	-0.272	-0.180	-0.147	-0.125	-0.143	-0.178	-0.193	-0.139	-0.026	0.001	0.011	0.016	0.005
36	164.9	1.245	0.275	-0.012	-0.219	-0.426	-0.350	-0.270	-0.176	-0.144	-0.122	-0.138	-0.169	-0.188	-0.135	-0.021	0.004	0.011	0.016	0.006
37	174.9	1.246	0.276	-0.013	-0.219	-0.425	-0.347	-0.268	-0.174	-0.142	-0.122	-0.134	-0.166	-0.188	-0.136	-0.019	0.005	0.014	0.018	0.006

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	-0.4547	-0.8046	-0.2802	0.1440	0.4978	0.3387	0.9180	0.3951	1.1518
CYX	-0.0184	-0.0666	-0.0406	0.0129	0.0861	0.3254	0.0782	0.3111	0.1110
CAX	3.1630	0.1335	-1.9127	-1.4205	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	1.9111	1.5361	-1.6140	-0.9551	0.0212	0.0096	-0.0688	-0.0892	-0.0913
CYX	0.2526	0.1998	-0.1579	-0.1357	0.0231	0.0102	0.0034	-0.0018	-0.0038
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.069	0.019	0.060	0.035	0.016	0.016	0.016	0.016	0.016

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 135 0.950 3.001 1438.1 804.6 508.3 997.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA	CONFIG	SURVEY	ALFAS	PHAS	X	Y	Z													
2.00	12	201	2.01	2046.9	11.218	0.000	-2.297													
DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1.243	0.329	0.052	0.151	0.271	0.153	0.001	0.031	0.031	0.034	0.040	0.054	0.074	0.108	0.132	0.138	0.085	0.071	0.083		
1.241	0.328	0.052	0.154	0.278	0.159	0.000	0.028	0.031	0.031	0.038	0.053	0.071	0.099	0.127	0.138	0.087	0.071	0.082		
1.243	0.329	0.050	0.154	0.280	0.162	0.000	0.027	0.031	0.031	0.038	0.053	0.071	0.097	0.127	0.139	0.091	0.073	0.085		
1.243	0.329	0.050	0.154	0.277	0.160	0.001	0.028	0.031	0.031	0.037	0.053	0.071	0.097	0.128	0.140	0.090	0.074	0.085		
1.243	0.327	0.048	0.154	0.276	0.158	0.001	0.032	0.031	0.039	0.053	0.074	0.101	0.133	0.145	0.093	0.077	0.089			
1.242	0.327	0.048	0.154	0.273	0.151	0.001	0.035	0.039	0.039	0.053	0.076	0.104	0.131	0.147	0.092	0.078	0.089			
1.243	0.327	0.049	0.152	0.273	0.153	0.001	0.039	0.037	0.038	0.056	0.078	0.108	0.141	0.149	0.088	0.077	0.087			
1.244	0.327	0.050	0.150	0.272	0.159	0.013	0.043	0.040	0.040	0.057	0.080	0.113	0.151	0.157	0.087	0.078	0.087			
1.242	0.325	0.049	0.150	0.266	0.152	0.013	0.048	0.044	0.043	0.042	0.050	0.084	0.120	0.159	0.154	0.086	0.078	0.087		
1.241	0.325	0.051	0.146	0.248	0.103	0.034	0.058	0.050	0.041	0.043	0.063	0.089	0.132	0.171	0.154	0.082	0.076	0.085		
1.242	0.328	0.053	0.142	0.233	0.096	0.045	0.065	0.053	0.043	0.044	0.064	0.092	0.140	0.180	0.152	0.076	0.074	0.082		
1.243	0.330	0.057	0.138	0.215	0.090	0.057	0.071	0.057	0.041	0.044	0.065	0.094	0.149	0.189	0.149	0.068	0.070	0.082		
1.245	0.331	0.060	0.134	0.191	0.080	0.071	0.084	0.063	0.041	0.045	0.068	0.100	0.163	0.200	0.146	0.060	0.066	0.081		
1.243	0.331	0.061	0.131	0.175	0.070	0.084	0.094	0.069	0.047	0.048	0.065	0.105	0.176	0.213	0.142	0.053	0.063	0.081		
1.242	0.333	0.065	0.124	0.138	0.059	0.121	0.110	0.076	0.049	0.070	0.110	0.194	0.273	0.310	0.228	0.036	0.051	0.077		
1.242	0.334	0.069	0.119	0.111	0.063	0.134	0.119	0.080	0.054	0.071	0.113	0.208	0.293	0.327	0.227	0.021	0.051	0.077		
1.244	0.335	0.071	0.117	0.088	0.070	0.156	0.128	0.086	0.067	0.074	0.119	0.230	0.315	0.348	0.245	0.018	0.047	0.080		
1.244	0.336	0.074	0.114	0.068	0.078	0.166	0.131	0.087	0.081	0.085	0.119	0.239	0.324	0.357	0.251	0.001	0.045	0.082		
1.242	0.335	0.072	0.114	0.061	0.089	0.166	0.131	0.090	0.090	0.094	0.119	0.234	0.319	0.352	0.248	0.000	0.043	0.077		
1.243	0.336	0.072	0.114	0.060	0.093	0.165	0.126	0.090	0.089	0.094	0.117	0.233	0.318	0.351	0.245	0.000	0.041	0.075		
1.243	0.334	0.070	0.117	0.077	0.089	0.166	0.121	0.093	0.081	0.078	0.117	0.233	0.318	0.351	0.245	0.000	0.041	0.075		
1.241	0.332	0.067	0.121	0.108	0.080	0.140	0.114	0.091	0.061	0.059	0.115	0.234	0.319	0.352	0.246	0.015	0.050	0.080		
1.242	0.331	0.063	0.125	0.133	0.070	0.125	0.104	0.084	0.059	0.050	0.109	0.211	0.296	0.332	0.227	0.027	0.052	0.080		
1.242	0.330	0.061	0.129	0.153	0.070	0.102	0.091	0.075	0.053	0.047	0.087	0.105	0.196	0.231	0.138	0.038	0.057	0.082		
1.243	0.330	0.059	0.132	0.179	0.075	0.086	0.080	0.069	0.051	0.045	0.085	0.099	0.182	0.208	0.141	0.045	0.059	0.080		
1.243	0.338	0.057	0.137	0.201	0.082	0.071	0.070	0.062	0.045	0.046	0.084	0.095	0.168	0.193	0.147	0.058	0.063	0.093		
1.243	0.337	0.054	0.141	0.224	0.088	0.049	0.061	0.056	0.048	0.045	0.083	0.092	0.153	0.181	0.151	0.064	0.068	0.086		
1.242	0.327	0.052	0.144	0.216	0.093	0.048	0.056	0.053	0.044	0.045	0.082	0.089	0.145	0.181	0.153	0.071	0.071	0.091		
1.242	0.327	0.053	0.145	0.250	0.097	0.036	0.048	0.047	0.040	0.043	0.081	0.086	0.135	0.170	0.150	0.074	0.072	0.089		
1.245	0.337	0.051	0.148	0.263	0.104	0.026	0.044	0.044	0.039	0.042	0.059	0.084	0.127	0.165	0.151	0.077	0.073	0.090		
1.241	0.326	0.050	0.150	0.270	0.115	0.018	0.038	0.040	0.040	0.042	0.058	0.080	0.118	0.155	0.148	0.082	0.074	0.090		
1.243	0.327	0.049	0.152	0.275	0.125	0.014	0.035	0.037	0.036	0.040	0.056	0.078	0.113	0.148	0.147	0.084	0.074	0.089		
1.243	0.328	0.050	0.152	0.278	0.134	0.002	0.032	0.034	0.034	0.039	0.054	0.075	0.107	0.143	0.130	0.082	0.072	0.085		
1.243	0.329	0.049	0.154	0.283	0.142	0.003	0.031	0.034	0.034	0.039	0.054	0.075	0.107	0.143	0.130	0.082	0.072	0.085		
1.241	0.328	0.050	0.155	0.283	0.149	0.004	0.029	0.033	0.033	0.040	0.055	0.074	0.101	0.133	0.130	0.086	0.073	0.084		
1.243	0.329	0.050	0.155	0.283	0.155	0.005	0.028	0.032	0.033	0.039	0.053	0.073	0.099	0.128	0.139	0.085	0.071	0.082		

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.0434	-0.2128	-0.5490	-1.1440	-1.3366	-2.5367	-1.5744	0.9333	0.6224
CXK	-0.0018	-0.0244	-0.0712	-0.4176	-0.2927	0.4311	0.0984	0.1692	0.1511
CXK	1.4026	0.6923	-1.2691	-0.6940	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	0.4890	0.3284	0.7343	2.0526	1.8749	-0.2509	-1.2756	-0.4225	-0.1308
CXK	0.0809	0.0333	0.0868	0.4478	0.3097	-0.0598	-0.3176	-0.1294	0.0166
CXK	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	0.102	CY	0.014	CA	0.120	CLW	-0.222	CLW	-0.029



DATE 6-MAR-78 PROJECT NO PAIC-MOC

Y ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARHOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-532 122 0.952 3.001 1422.2

P

793.7

503.7

VT

77.9

DATE

2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA	CONFIG	SURVEY	ALFAS	PRAR	X	Y	Z	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2.00	12	202	2.01	2047.5	11.218	0.000	-2.572																			
PNT	DPNT																									
1	1.245	0.332	0.053	-0.151	-0.290	-0.171	0.017	-0.021	-0.026	-0.033	-0.048	-0.066	-0.090	-0.118	-0.137	-0.104	-0.073	-0.094								
2	1.246	0.332	0.052	-0.154	-0.296	-0.179	0.017	-0.020	-0.027	-0.033	-0.047	-0.064	-0.087	-0.113	-0.135	-0.108	-0.073	-0.094								
3	1.246	0.331	0.051	-0.155	-0.296	-0.183	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.115	-0.136	-0.109	-0.074	-0.096								
4	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
5	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
6	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
7	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
8	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
9	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
10	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
11	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
12	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
13	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
14	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
15	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
16	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
17	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
18	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
19	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
20	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
21	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
22	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
23	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
24	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
25	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
26	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
27	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
28	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
29	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
30	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
31	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
32	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
33	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
34	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
35	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
36	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								
37	1.247	0.332	0.051	-0.154	-0.293	-0.181	0.018	-0.021	-0.028	-0.033	-0.047	-0.064	-0.087	-0.116	-0.137	-0.109	-0.073	-0.096								

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX1	0.0390	-0.0746	-0.3896	-1.7954	-1.9692	1.6773	1.0705	0.6763	0.3824
CX2	-0.0023	-0.0393	-0.0870	-0.2049	-0.4936	0.4139	0.0875	0.1093	0.0546
CAX	3.3656	0.6312	-1.3216	-0.8545	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4595
CX1	0.2839	1.2844	0.4955	1.3840	1.6160	0.4457	-1.0226	-0.2135	-0.1517
CX2	0.0322	0.0824	0.0824	0.3087	0.2887	0.0600	-0.1498	-0.0110	0.1562
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LW

-0.079

C

-0.017

A

0.111

C

0.046

N

0.07

DATE 8-MAR-78 PROJECT NO P41C-N0C

ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLO AIR FORCE STATION, TENNESSEE  
TEST PART MACH RE10-6 PT

TC-532 123 0.951 2.999 1427.8 797.6 505.3 996.5 79.7 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA	CONFIG	SURVEY	ALFAS	PHAS	X	Y	Z													
2.00	12	203	2.01	2047.2	11.218	0.000	-2.947													
PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.245	0.331	0.051	-0.137	-0.310	-0.182	0.024	-0.015	-0.022	-0.026	-0.032	-0.045	-0.061	-0.082	-0.105	-0.128	-0.154	-0.180	-0.207
3	-164.9	1.243	0.330	0.050	-0.136	-0.317	-0.188	0.024	-0.013	-0.021	-0.025	-0.031	-0.043	-0.059	-0.079	-0.102	-0.124	-0.149	-0.174	-0.198
4	-153.0	1.244	0.331	0.051	-0.138	-0.315	-0.191	0.025	-0.012	-0.020	-0.025	-0.031	-0.043	-0.058	-0.078	-0.102	-0.123	-0.147	-0.170	-0.194
5	-144.9	1.243	0.329	0.050	-0.140	-0.313	-0.194	0.024	-0.014	-0.021	-0.025	-0.032	-0.045	-0.060	-0.080	-0.104	-0.126	-0.149	-0.172	-0.195
6	-135.1	1.244	0.329	0.049	-0.138	-0.310	-0.191	0.024	-0.013	-0.020	-0.024	-0.030	-0.043	-0.059	-0.079	-0.103	-0.126	-0.149	-0.172	-0.195
7	-125.0	1.245	0.328	0.047	-0.138	-0.312	-0.190	0.025	-0.016	-0.022	-0.025	-0.031	-0.043	-0.060	-0.082	-0.110	-0.131	-0.158	-0.184	-0.209
8	-115.1	1.243	0.325	0.045	-0.139	-0.315	-0.184	0.025	-0.019	-0.024	-0.026	-0.031	-0.043	-0.062	-0.085	-0.114	-0.135	-0.160	-0.184	-0.209
9	-105.0	1.244	0.324	0.043	-0.139	-0.311	-0.178	0.024	-0.022	-0.027	-0.027	-0.033	-0.043	-0.067	-0.094	-0.126	-0.146	-0.169	-0.192	-0.215
10	-95.0	1.243	0.321	0.042	-0.139	-0.309	-0.169	0.023	-0.026	-0.029	-0.029	-0.034	-0.043	-0.068	-0.096	-0.132	-0.150	-0.174	-0.197	-0.220
11	-85.0	1.245	0.321	0.043	-0.136	-0.304	-0.156	0.013	-0.028	-0.030	-0.030	-0.034	-0.043	-0.068	-0.096	-0.132	-0.150	-0.174	-0.197	-0.220
12	-75.0	1.244	0.320	0.043	-0.135	-0.301	-0.142	0.015	-0.032	-0.034	-0.034	-0.036	-0.043	-0.070	-0.102	-0.140	-0.155	-0.178	-0.199	-0.221
13	-65.0	1.243	0.319	0.044	-0.133	-0.295	-0.127	0.008	-0.036	-0.035	-0.033	-0.036	-0.043	-0.072	-0.106	-0.146	-0.160	-0.180	-0.198	-0.216
14	-54.9	1.245	0.318	0.045	-0.130	-0.291	-0.111	0.008	-0.040	-0.038	-0.035	-0.038	-0.045	-0.075	-0.113	-0.156	-0.165	-0.180	-0.195	-0.210
15	-45.1	1.243	0.317	0.044	-0.129	-0.287	-0.101	0.009	-0.043	-0.040	-0.037	-0.040	-0.045	-0.077	-0.119	-0.164	-0.169	-0.180	-0.191	-0.201
16	-35.1	1.244	0.317	0.046	-0.126	-0.282	-0.089	0.011	-0.047	-0.043	-0.040	-0.037	-0.040	-0.058	-0.090	-0.130	-0.130	-0.130	-0.130	-0.130
17	-25.1	1.244	0.316	0.046	-0.126	-0.282	-0.089	0.011	-0.047	-0.043	-0.040	-0.037	-0.040	-0.058	-0.090	-0.130	-0.130	-0.130	-0.130	-0.130
18	-15.0	1.246	0.316	0.047	-0.121	-0.271	-0.072	0.026	-0.055	-0.048	-0.038	-0.040	-0.040	-0.058	-0.091	-0.132	-0.130	-0.130	-0.130	-0.130
19	-5.0	1.242	0.316	0.048	-0.120	-0.266	-0.066	0.035	-0.057	-0.050	-0.038	-0.041	-0.040	-0.058	-0.093	-0.133	-0.130	-0.130	-0.130	-0.130
20	5.0	1.244	0.316	0.048	-0.119	-0.264	-0.064	0.035	-0.057	-0.050	-0.039	-0.041	-0.040	-0.058	-0.093	-0.133	-0.130	-0.130	-0.130	-0.130
21	15.0	1.243	0.315	0.047	-0.117	-0.269	-0.066	0.036	-0.057	-0.051	-0.040	-0.042	-0.040	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
22	25.0	1.243	0.316	0.047	-0.117	-0.271	-0.069	0.036	-0.055	-0.050	-0.039	-0.042	-0.040	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
23	35.0	1.242	0.315	0.047	-0.120	-0.275	-0.073	0.035	-0.052	-0.047	-0.039	-0.042	-0.040	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
24	45.0	1.243	0.316	0.045	-0.144	-0.281	-0.079	0.033	-0.048	-0.046	-0.039	-0.041	-0.040	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
25	54.9	1.242	0.316	0.045	-0.146	-0.286	-0.086	0.029	-0.044	-0.043	-0.037	-0.040	-0.040	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
26	64.9	1.243	0.317	0.044	-0.149	-0.294	-0.095	0.015	-0.039	-0.040	-0.036	-0.039	-0.039	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
27	74.9	1.243	0.317	0.044	-0.151	-0.299	-0.104	0.015	-0.036	-0.037	-0.034	-0.039	-0.039	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
28	84.9	1.243	0.319	0.045	-0.152	-0.304	-0.114	0.011	-0.031	-0.034	-0.032	-0.037	-0.037	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
29	95.0	1.243	0.320	0.045	-0.155	-0.309	-0.125	0.001	-0.029	-0.032	-0.032	-0.036	-0.036	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
30	105.0	1.244	0.323	0.046	-0.154	-0.311	-0.133	0.003	-0.024	-0.028	-0.029	-0.035	-0.035	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
31	115.0	1.244	0.324	0.047	-0.156	-0.317	-0.144	0.011	-0.022	-0.027	-0.028	-0.034	-0.034	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
32	125.0	1.242	0.325	0.047	-0.157	-0.318	-0.156	0.015	-0.020	-0.026	-0.026	-0.034	-0.034	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
33	135.0	1.245	0.329	0.049	-0.157	-0.319	-0.163	0.015	-0.016	-0.023	-0.025	-0.032	-0.032	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
34	144.9	1.242	0.327	0.048	-0.158	-0.321	-0.170	0.015	-0.016	-0.023	-0.026	-0.033	-0.033	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
35	154.9	1.245	0.330	0.052	-0.157	-0.322	-0.174	0.024	-0.013	-0.020	-0.025	-0.031	-0.031	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
36	164.9	1.244	0.330	0.052	-0.158	-0.323	-0.179	0.024	-0.013	-0.021	-0.025	-0.032	-0.032	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130
37	174.9	1.245	0.332	0.052	-0.158	-0.322	-0.183	0.023	-0.012	-0.020	-0.024	-0.031	-0.031	-0.058	-0.094	-0.136	-0.130	-0.130	-0.130	-0.130

ORIFICE		2		3		4		5		6		7		8		9		10	
X5 FT		0.0278		0.0555		0.0833		0.1110		0.1388		0.1665		0.1943		0.2220		0.2498	
CX	0.1012	0.0467		-0.0423		-0.0763		-0.1093		-0.1423		-0.1753		-0.2083		-0.2413		-0.2743	
CY	0.0127	-0.0140		-0.0548		-0.0957		-0.1366		-0.1775		-0.2184		-0.2593		-0.3002		-0.3411	
CAX	3.3257	0.5712		-1.3935		-0.9921		-0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	
ORIFICE		11		12		13		14		15		16		17		18		19	
X5 FT	0.2775	0.3053		0.3330		0.3608		0.3885		0.4163		0.4440		0.4718		0.5000		0.5282	
CX	0.1731	0.2390		0.3049		0.3708		0.4367		0.5026		0.5685		0.6344		0.7003		0.7662	
CY	0.0404	0.0508		0.0749		0.1897		0.2217		0.2537		0.2857		0.3177		0.3497		0.3817	
CAX	0.0000	0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	
CN	0.076	0.010		0.103		-0.214		-0.306		-0.398		-0.490		-0.582		-0.674		-0.766	



DATE 6-MAR-78 PROJECT NO PAIC-MOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-512 124 0.953 3.003 1432.0 798.3 507.7 999.0 80.6

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSOMIC 47

ALFA CONFIG SURVEY

2.00 12

ALFA 2.01

PHAR 2047.2

Q 12.718

X 0.000

Y -2.947

Z

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

ORIFICE

XS FT

0.0278

0.0555

-0.1730

0.0062

0.0063

3.2984

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DATE 6-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH HX10-6 PT

TC-532 138 0.948 2.999 1439.4 807.2 507.7 996.2 82.6

DATE 2-17-78  
AEC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG 12 SURVEY 202 ALPHA 4.99 PRAR 2046.9 X 11.218 Y 0.000 Z -2.572

PNT	DPMI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	-174.9	1.241	0.395	0.125	-0.070	-0.178	-0.007	0.047	0.045	0.040	0.034	0.025	0.009	-0.010	-0.027	-0.232	-0.032	-0.029	-0.029	-0.053
2	-165.0	1.246	0.397	0.127	-0.070	-0.181	-0.005	0.050	0.048	0.043	0.037	0.028	0.012	-0.005	-0.021	-0.227	-0.029	-0.025	-0.028	-0.049
3	-155.0	1.246	0.396	0.126	-0.065	-0.179	-0.005	0.052	0.050	0.046	0.039	0.030	0.014	-0.004	-0.020	-0.227	-0.027	-0.025	-0.028	-0.048
4	-145.9	1.242	0.389	0.119	-0.071	-0.179	-0.011	0.054	0.048	0.043	0.036	0.027	0.011	-0.007	-0.024	-0.233	-0.032	-0.032	-0.038	-0.059
5	-135.1	1.246	0.385	0.115	-0.076	-0.175	-0.013	0.055	0.047	0.042	0.036	0.027	0.009	-0.010	-0.027	-0.236	-0.036	-0.032	-0.038	-0.062
6	-125.0	1.245	0.378	0.110	-0.079	-0.171	-0.015	0.054	0.045	0.040	0.035	0.025	0.008	-0.012	-0.031	-0.241	-0.038	-0.035	-0.039	-0.065
7	-115.1	1.243	0.371	0.105	-0.081	-0.163	-0.017	0.054	0.043	0.039	0.033	0.024	0.007	-0.014	-0.035	-0.244	-0.041	-0.035	-0.040	-0.066
8	-105.0	1.246	0.364	0.100	-0.081	-0.155	-0.020	0.055	0.042	0.039	0.033	0.024	0.006	-0.015	-0.035	-0.248	-0.042	-0.035	-0.040	-0.067
9	-95.0	1.244	0.356	0.095	-0.081	-0.147	-0.022	0.055	0.039	0.035	0.032	0.022	0.004	-0.019	-0.044	-0.254	-0.045	-0.035	-0.041	-0.069
10	-85.0	1.243	0.351	0.091	-0.082	-0.140	-0.021	0.055	0.038	0.034	0.032	0.020	0.002	-0.022	-0.049	-0.258	-0.046	-0.034	-0.041	-0.069
11	-75.0	1.245	0.345	0.089	-0.081	-0.134	-0.019	0.054	0.034	0.032	0.030	0.020	0.000	-0.026	-0.056	-0.264	-0.047	-0.031	-0.040	-0.069
12	-65.0	1.245	0.340	0.085	-0.079	-0.126	-0.013	0.053	0.030	0.030	0.029	0.019	-0.001	-0.039	-0.061	-0.270	-0.049	-0.029	-0.039	-0.070
13	-54.9	1.244	0.336	0.086	-0.078	-0.118	-0.004	0.042	0.027	0.028	0.029	0.020	0.002	-0.032	-0.078	-0.274	-0.048	-0.021	-0.035	-0.067
14	-45.1	1.244	0.333	0.085	-0.070	-0.107	0.003	0.030	0.022	0.025	0.028	0.020	0.002	-0.036	-0.077	-0.280	-0.045	-0.015	-0.032	-0.067
15	-35.1	1.244	0.330	0.084	-0.068	-0.098	0.008	0.018	0.015	0.022	0.028	0.018	0.005	-0.040	-0.087	-0.287	-0.045	-0.011	-0.032	-0.067
16	-25.1	1.240	0.327	0.085	-0.065	-0.088	0.013	0.008	0.010	0.020	0.027	0.018	0.005	-0.042	-0.091	-0.291	-0.041	-0.003	-0.038	-0.067
17	-15.1	1.245	0.329	0.087	-0.065	-0.079	0.016	0.010	0.006	0.018	0.027	0.019	0.004	-0.043	-0.097	-0.292	-0.038	0.003	-0.038	-0.064
18	-5.0	1.241	0.328	0.086	-0.059	-0.073	0.017	-0.001	0.001	0.014	0.024	0.017	0.004	-0.045	-0.103	-0.296	-0.038	0.007	-0.038	-0.066
19	5.0	1.242	0.326	0.086	-0.055	-0.069	0.020	0.000	0.000	0.012	0.024	0.017	0.004	-0.045	-0.103	-0.297	-0.035	0.010	-0.037	-0.065
20	15.0	1.242	0.326	0.086	-0.055	-0.069	0.021	0.000	0.000	0.012	0.024	0.016	0.004	-0.045	-0.103	-0.297	-0.035	0.008	-0.037	-0.067
21	24.9	1.242	0.327	0.087	-0.055	-0.074	0.017	0.001	0.004	0.015	0.025	0.018	0.003	-0.045	-0.103	-0.293	-0.035	0.007	-0.037	-0.064
22	35.0	1.242	0.328	0.085	-0.061	-0.083	0.015	0.000	0.009	0.017	0.025	0.018	0.004	-0.045	-0.103	-0.292	-0.038	0.003	-0.036	-0.067
23	45.0	1.240	0.329	0.084	-0.065	-0.094	0.012	0.004	0.016	0.020	0.027	0.018	0.004	-0.045	-0.099	-0.286	-0.040	0.005	-0.037	-0.067
24	54.9	1.242	0.332	0.085	-0.065	-0.101	0.011	0.019	0.021	0.023	0.028	0.020	0.002	-0.037	-0.085	-0.281	-0.041	0.008	-0.037	-0.066
25	64.9	1.240	0.334	0.083	-0.071	-0.113	0.005	0.025	0.024	0.024	0.026	0.018	0.003	-0.036	-0.085	-0.279	-0.045	0.018	-0.037	-0.070
26	74.9	1.240	0.339	0.086	-0.071	-0.122	0.006	0.027	0.028	0.027	0.028	0.020	0.001	-0.032	-0.077	-0.272	-0.045	0.022	-0.037	-0.069
27	84.9	1.241	0.346	0.088	-0.078	-0.134	0.006	0.037	0.033	0.030	0.029	0.020	0.001	-0.027	-0.063	-0.265	-0.045	0.026	-0.036	-0.069
28	95.0	1.243	0.353	0.091	-0.081	-0.143	0.005	0.049	0.036	0.033	0.030	0.022	0.002	-0.025	-0.058	-0.261	-0.045	0.029	-0.038	-0.070
29	105.0	1.244	0.359	0.094	-0.080	-0.148	0.003	0.050	0.038	0.034	0.031	0.022	0.003	-0.022	-0.055	-0.257	-0.044	0.031	-0.038	-0.071
30	114.9	1.242	0.364	0.097	-0.082	-0.157	0.002	0.050	0.040	0.035	0.031	0.023	0.004	-0.020	-0.047	-0.252	-0.044	0.033	-0.039	-0.071
31	125.0	1.243	0.374	0.102	-0.080	-0.163	0.004	0.050	0.043	0.038	0.033	0.024	0.006	-0.016	-0.041	-0.247	-0.041	0.032	-0.038	-0.069
32	134.9	1.244	0.382	0.108	-0.080	-0.172	0.006	0.050	0.044	0.039	0.034	0.024	0.007	-0.014	-0.036	-0.243	-0.039	0.032	-0.037	-0.066
33	144.9	1.242	0.387	0.113	-0.078	-0.178	0.007	0.050	0.045	0.040	0.034	0.025	0.007	-0.013	-0.033	-0.240	-0.040	0.037	-0.037	-0.064
34	154.9	1.244	0.393	0.118	-0.078	-0.182	0.007	0.050	0.046	0.041	0.035	0.026	0.009	-0.010	-0.033	-0.237	-0.036	0.032	-0.036	-0.063
35	164.9	1.243	0.397	0.122	-0.073	-0.184	0.005	0.050	0.047	0.042	0.036	0.027	0.011	-0.008	-0.028	-0.233	-0.034	0.030	-0.034	-0.059
36	174.9	1.246	0.400	0.128	-0.070	-0.185	0.004	0.051	0.048	0.044	0.037	0.028	0.012	-0.006	-0.024	-0.231	-0.032	0.029	-0.032	-0.057

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CVX	0.4770	-0.4413	-0.1806	-1.7027	-0.3636	0.7516	0.6849	0.4359	0.1828
CYX	0.0309	-0.0550	-0.0361	-0.1574	-0.3024	0.2289	0.0890	0.0826	0.0420
CAX	3.6844	1.2017	-0.6812	-0.4471	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2770	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CVX	0.1623	0.2581	0.6176	1.2516	1.0361	0.1066	-0.5413	-0.1209	0.1335
CYX	0.0261	0.0330	0.1087	0.2465	0.1388	-0.0098	-0.1153	-0.0508	0.0482
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CA 0.165 CLW -0.081 CLW -0.020

DATE 6-MAR-78 PROJECT NO P41C-WOC

AERO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-512 139 0.951

3.000 1438.7

PT 803.8

Q 509.1

VI 999.3

IT 82.7

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

5.00 12

SURVEY

203

ALFAS

4.99

PHAP

2046.9

X 11.218

Y 0.000

Z -2.947

PNT

DPH1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.243 0.400 0.128 -0.073 -0.206 -0.009 0.057 0.049 0.044 0.039 0.030 0.014 -0.002 -0.018 -0.024 -0.027 -0.027 -0.030 -0.056

2 -174.9 1.244 0.399 0.126 -0.075 -0.212 -0.012 0.056 0.049 0.044 0.039 0.010 0.011 -0.001 -0.015 -0.023 -0.027 -0.028 -0.031 -0.056

3 -164.9 1.243 0.395 0.122 -0.078 -0.209 -0.014 0.056 0.049 0.044 0.038 0.029 0.011 -0.002 -0.016 -0.024 -0.028 -0.029 -0.032 -0.056

4 -155.0 1.246 0.391 0.117 -0.081 -0.204 -0.018 0.057 0.049 0.045 0.038 0.029 0.013 -0.003 -0.017 -0.026 -0.029 -0.030 -0.033 -0.058

5 -144.9 1.243 0.384 0.111 -0.085 -0.197 -0.021 0.057 0.048 0.043 0.037 0.028 0.012 -0.004 -0.020 -0.029 -0.032 -0.033 -0.035 -0.060

6 -135.1 1.243 0.377 0.106 -0.088 -0.191 -0.022 0.057 0.048 0.042 0.036 0.027 0.011 -0.006 -0.023 -0.031 -0.034 -0.035 -0.038 -0.061

7 -125.1 1.243 0.369 0.099 -0.090 -0.185 -0.025 0.057 0.047 0.042 0.035 0.026 0.010 -0.009 -0.026 -0.035 -0.038 -0.041 -0.044 -0.064

8 -115.1 1.243 0.359 0.092 -0.094 -0.178 -0.030 0.056 0.044 0.039 0.034 0.024 0.009 -0.012 -0.030 -0.040 -0.040 -0.043 -0.046 -0.066

9 -105.0 1.246 0.353 0.089 -0.094 -0.167 -0.032 0.058 0.045 0.041 0.035 0.024 0.008 -0.012 -0.032 -0.042 -0.040 -0.043 -0.046 -0.066

10 -95.0 1.246 0.344 0.083 -0.096 -0.160 -0.033 0.058 0.043 0.039 0.034 0.024 0.008 -0.015 -0.031 -0.041 -0.040 -0.043 -0.046 -0.066

11 -85.0 1.242 0.334 0.076 -0.097 -0.156 -0.031 0.057 0.040 0.036 0.032 0.024 0.008 -0.019 -0.043 -0.052 -0.045 -0.048 -0.051 -0.069

12 -75.0 1.243 0.330 0.074 -0.095 -0.150 -0.034 0.059 0.041 0.037 0.033 0.024 0.008 -0.019 -0.043 -0.054 -0.044 -0.048 -0.051 -0.067

13 -65.0 1.245 0.325 0.071 -0.094 -0.145 -0.038 0.059 0.039 0.036 0.033 0.023 0.008 -0.021 -0.049 -0.058 -0.044 -0.048 -0.051 -0.067

14 -54.9 1.241 0.318 0.067 -0.093 -0.142 -0.041 0.057 0.036 0.033 0.021 0.021 0.001 -0.025 -0.056 -0.063 -0.045 -0.048 -0.051 -0.068

15 -45.1 1.244 0.316 0.067 -0.091 -0.137 -0.045 0.059 0.036 0.033 0.022 0.022 0.001 -0.026 -0.059 -0.065 -0.044 -0.048 -0.051 -0.067

16 -35.1 1.243 0.312 0.066 -0.089 -0.133 -0.041 0.057 0.033 0.032 0.022 0.022 0.000 -0.028 -0.063 -0.067 -0.043 -0.048 -0.051 -0.067

17 -25.1 1.245 0.311 0.067 -0.086 -0.129 -0.046 0.050 0.032 0.031 0.022 0.022 0.001 -0.029 -0.065 -0.068 -0.041 -0.048 -0.051 -0.067

18 -15.0 1.243 0.309 0.065 -0.085 -0.127 -0.049 0.050 0.029 0.030 0.021 0.021 0.001 -0.031 -0.069 -0.071 -0.041 -0.048 -0.051 -0.067

19 -5.0 1.244 0.310 0.067 -0.083 -0.125 -0.052 0.051 0.030 0.031 0.022 0.022 0.001 -0.030 -0.069 -0.069 -0.041 -0.048 -0.051 -0.067

20 5.0 1.242 0.310 0.065 -0.087 -0.128 -0.049 0.041 0.028 0.029 0.020 0.020 0.001 -0.033 -0.071 -0.071 -0.041 -0.048 -0.051 -0.067

21 15.0 1.240 0.309 0.065 -0.086 -0.128 -0.048 0.042 0.030 0.030 0.021 0.021 0.001 -0.032 -0.069 -0.070 -0.040 -0.048 -0.051 -0.067

22 25.0 1.242 0.311 0.066 -0.087 -0.131 -0.048 0.043 0.033 0.033 0.022 0.022 0.001 -0.030 -0.066 -0.067 -0.040 -0.048 -0.051 -0.067

23 35.0 1.239 0.313 0.066 -0.090 -0.136 -0.051 0.043 0.035 0.032 0.021 0.021 0.000 -0.028 -0.063 -0.065 -0.041 -0.048 -0.051 -0.067

24 45.0 1.240 0.317 0.067 -0.092 -0.140 -0.055 0.054 0.037 0.033 0.022 0.022 0.002 -0.026 -0.058 -0.062 -0.042 -0.048 -0.051 -0.067

25 54.9 1.240 0.322 0.069 -0.094 -0.147 -0.056 0.055 0.039 0.034 0.022 0.022 0.003 -0.024 -0.055 -0.059 -0.043 -0.048 -0.051 -0.067

26 64.9 1.243 0.327 0.070 -0.096 -0.155 -0.059 0.054 0.040 0.035 0.022 0.022 0.003 -0.020 -0.051 -0.057 -0.044 -0.048 -0.051 -0.067

27 74.9 1.241 0.335 0.074 -0.097 -0.162 -0.057 0.055 0.041 0.037 0.022 0.022 0.003 -0.020 -0.046 -0.052 -0.044 -0.048 -0.051 -0.067

28 84.9 1.240 0.343 0.078 -0.098 -0.168 -0.061 0.056 0.042 0.037 0.021 0.021 0.003 -0.018 -0.042 -0.048 -0.042 -0.048 -0.051 -0.067

29 95.0 1.245 0.352 0.084 -0.096 -0.171 -0.065 0.056 0.045 0.039 0.024 0.024 0.004 -0.014 -0.037 -0.044 -0.040 -0.048 -0.051 -0.067

30 105.0 1.241 0.360 0.089 -0.095 -0.178 -0.068 0.057 0.044 0.040 0.023 0.023 0.004 -0.013 -0.034 -0.041 -0.039 -0.048 -0.051 -0.067

31 114.9 1.242 0.370 0.095 -0.092 -0.184 -0.068 0.058 0.046 0.041 0.023 0.023 0.005 -0.010 -0.029 -0.037 -0.037 -0.048 -0.051 -0.067

32 125.0 1.246 0.379 0.102 -0.090 -0.190 -0.068 0.058 0.048 0.042 0.023 0.023 0.007 -0.008 -0.026 -0.033 -0.035 -0.048 -0.051 -0.067

33 134.9 1.244 0.385 0.107 -0.089 -0.199 -0.071 0.056 0.047 0.041 0.023 0.023 0.008 -0.007 -0.025 -0.032 -0.035 -0.048 -0.051 -0.067

34 144.9 1.245 0.393 0.114 -0.084 -0.202 -0.073 0.057 0.049 0.044 0.023 0.023 0.008 -0.004 -0.024 -0.027 -0.031 -0.048 -0.051 -0.067

35 154.9 1.245 0.396 0.118 -0.083 -0.208 -0.076 0.056 0.048 0.043 0.023 0.023 0.008 -0.003 -0.024 -0.025 -0.030 -0.048 -0.051 -0.067

36 164.9 1.244 0.400 0.124 -0.077 -0.211 -0.081 0.058 0.050 0.045 0.023 0.023 0.010 -0.001 -0.015 -0.021 -0.027 -0.048 -0.051 -0.067

37 174.9



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNO AIR FORCE STATION, TENNESSEE

TEST PART WACH RELIO-6 PT P Q VI TT

TC-532 140 0.953 3.005 1439.4 802.7 510.1 1000.5 82.5

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4Y

ALFA CONFIG SURVEY 204

ALFA 4.99 PHAR 2047.0 X Y Z

5.00 12 0.000 -2.947

PWT	DPMT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.243	0.373	0.098	-0.114	-0.320	-0.120	0.047	0.006	-0.008	-0.022	-0.025	-0.025	-0.025	-0.025	-0.025	-0.016	-0.012	-0.003	0.004
3	-164.9	1.247	0.374	0.098	-0.117	-0.326	-0.132	0.048	0.008	-0.010	-0.023	-0.025	-0.025	-0.025	-0.025	-0.025	-0.017	-0.011	-0.002	0.006
4	-155.0	1.245	0.371	0.091	-0.121	-0.329	-0.155	0.048	0.003	-0.012	-0.026	-0.029	-0.028	-0.028	-0.028	-0.028	-0.021	-0.013	-0.005	0.004
5	-144.9	1.245	0.368	0.087	-0.124	-0.328	-0.173	0.049	0.004	-0.013	-0.027	-0.030	-0.028	-0.028	-0.028	-0.027	-0.021	-0.012	-0.004	0.003
6	-135.1	1.246	0.365	0.084	-0.127	-0.329	-0.186	0.049	0.003	-0.015	-0.029	-0.032	-0.031	-0.030	-0.029	-0.029	-0.021	-0.014	-0.004	0.003
7	-125.0	1.244	0.360	0.079	-0.130	-0.328	-0.197	0.050	0.001	-0.017	-0.031	-0.035	-0.032	-0.031	-0.030	-0.029	-0.021	-0.014	-0.005	0.003
8	-115.1	1.247	0.357	0.075	-0.135	-0.329	-0.208	0.049	0.000	-0.020	-0.031	-0.038	-0.034	-0.034	-0.033	-0.032	-0.025	-0.018	-0.007	0.001
9	-105.0	1.243	0.350	0.069	-0.139	-0.329	-0.218	0.049	0.000	-0.025	-0.034	-0.041	-0.036	-0.036	-0.035	-0.034	-0.027	-0.018	-0.008	0.000
10	-95.0	1.245	0.348	0.067	-0.142	-0.326	-0.223	0.051	0.003	-0.025	-0.034	-0.041	-0.034	-0.034	-0.033	-0.033	-0.025	-0.015	-0.008	0.000
11	-85.0	1.245	0.344	0.063	-0.147	-0.326	-0.233	0.050	0.003	-0.030	-0.031	-0.047	-0.036	-0.036	-0.035	-0.035	-0.028	-0.017	-0.008	0.000
12	-75.0	1.245	0.341	0.060	-0.150	-0.326	-0.238	0.050	0.003	-0.033	-0.035	-0.050	-0.035	-0.035	-0.034	-0.034	-0.026	-0.016	-0.005	0.000
13	-65.0	1.244	0.338	0.057	-0.153	-0.328	-0.243	0.050	0.000	-0.038	-0.038	-0.053	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
14	-54.9	1.245	0.338	0.058	-0.154	-0.326	-0.243	0.052	0.000	-0.040	-0.040	-0.053	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
15	-45.1	1.244	0.335	0.056	-0.159	-0.326	-0.243	0.051	0.000	-0.046	-0.046	-0.057	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
16	-35.1	1.244	0.335	0.055	-0.159	-0.326	-0.232	0.052	0.000	-0.046	-0.046	-0.057	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
17	-25.1	1.245	0.335	0.055	-0.161	-0.326	-0.221	0.051	0.000	-0.053	-0.053	-0.069	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
18	-15.0	1.246	0.335	0.055	-0.163	-0.326	-0.211	0.041	0.000	-0.057	-0.057	-0.069	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
19	-5.0	1.246	0.333	0.055	-0.163	-0.326	-0.205	0.042	0.000	-0.059	-0.059	-0.062	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
20	5.0	1.243	0.334	0.055	-0.162	-0.326	-0.200	0.042	0.000	-0.059	-0.059	-0.062	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
21	15.0	1.245	0.333	0.055	-0.162	-0.326	-0.199	0.042	0.000	-0.060	-0.060	-0.062	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
22	25.0	1.247	0.333	0.054	-0.163	-0.326	-0.202	0.042	0.000	-0.060	-0.060	-0.062	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
23	35.0	1.245	0.334	0.055	-0.162	-0.326	-0.208	0.043	0.000	-0.057	-0.057	-0.058	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
24	45.0	1.244	0.334	0.054	-0.162	-0.326	-0.220	0.043	0.000	-0.053	-0.053	-0.058	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
25	54.9	1.244	0.335	0.055	-0.159	-0.326	-0.229	0.044	0.000	-0.048	-0.048	-0.055	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
26	64.9	1.244	0.335	0.054	-0.159	-0.326	-0.235	0.053	0.000	-0.045	-0.045	-0.055	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
27	74.9	1.242	0.337	0.056	-0.156	-0.326	-0.233	0.053	0.000	-0.042	-0.042	-0.053	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
28	84.9	1.244	0.342	0.061	-0.151	-0.326	-0.225	0.057	0.000	-0.035	-0.035	-0.048	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
29	95.0	1.245	0.345	0.063	-0.149	-0.326	-0.221	0.056	0.000	-0.032	-0.032	-0.048	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
30	105.0	1.242	0.350	0.070	-0.140	-0.326	-0.208	0.055	0.000	-0.024	-0.024	-0.039	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
31	116.9	1.243	0.351	0.068	-0.143	-0.326	-0.215	0.049	0.000	-0.028	-0.028	-0.044	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
32	129.0	1.242	0.356	0.073	-0.139	-0.326	-0.210	0.048	0.000	-0.025	-0.025	-0.041	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
33	134.9	1.243	0.361	0.077	-0.135	-0.326	-0.200	0.047	0.000	-0.021	-0.021	-0.037	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
34	144.9	1.245	0.368	0.085	-0.128	-0.326	-0.178	0.047	0.000	-0.015	-0.015	-0.030	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
35	154.9	1.245	0.371	0.088	-0.125	-0.326	-0.159	0.044	0.000	-0.014	-0.014	-0.030	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
36	164.9	1.243	0.371	0.091	-0.123	-0.326	-0.145	0.044	0.000	-0.013	-0.013	-0.026	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000
37	174.9	1.246	0.374	0.096	-0.119	-0.326	-0.132	0.044	0.000	-0.011	-0.011	-0.024	-0.035	-0.035	-0.035	-0.035	-0.026	-0.017	-0.005	0.000

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.278	0.555	0.083	0.110	0.138	0.165	0.193	0.220	0.248
CM	0.268	0.436	0.623	0.126	1.030	0.034	0.328	0.758	0.967
CX	0.220	0.041	0.095	0.104	-0.095	0.011	0.045	0.119	0.157
CAX	3.6035	0.8374	-1.3127	-1.0982	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CM	0.5493	-0.1157	-0.1725	0.0223	0.0285	-0.0219	-0.0541	-0.0277	0.0030
CX	0.0438	-0.0596	-0.0502	-0.0002	0.0277	0.0245	0.0190	0.0115	0.0171
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0.136 CY 0.014 CA 0.117 CLM 0.743 CLN 0.015





DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARG, INC.

AEDC DIVISION

A SPENDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REXIO-6 PT

TC-532 166 1.048 2.996 1412.7 705.4 541.9 1086.8 86.6

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSOMIC 47

ALFA CONFIG SURVEY 202

ALFA 0.03

PRAP 2048.1

X 11.218

Y 0.000

Z -2.572

PNT DPHE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.303 0.358 0.087 0.110 0.297 0.210 0.149 0.016 0.052 0.087 0.104 0.108 0.097 0.098 0.104 0.110 0.107 0.107 0.107 0.107

1.304 0.359 0.087 0.110 0.298 0.210 0.149 0.015 0.048 0.085 0.102 0.108 0.097 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.305 0.360 0.088 0.110 0.299 0.210 0.149 0.017 0.050 0.087 0.102 0.108 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.306 0.361 0.089 0.110 0.300 0.210 0.149 0.018 0.051 0.088 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.307 0.362 0.090 0.110 0.301 0.210 0.149 0.019 0.052 0.089 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.308 0.363 0.091 0.110 0.302 0.210 0.149 0.020 0.053 0.090 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.309 0.364 0.092 0.110 0.303 0.210 0.149 0.021 0.054 0.091 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.310 0.365 0.093 0.110 0.304 0.210 0.149 0.022 0.055 0.092 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.311 0.366 0.094 0.110 0.305 0.210 0.149 0.023 0.056 0.093 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.312 0.367 0.095 0.110 0.306 0.210 0.149 0.024 0.057 0.094 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.313 0.368 0.096 0.110 0.307 0.210 0.149 0.025 0.058 0.095 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.314 0.369 0.097 0.110 0.308 0.210 0.149 0.026 0.059 0.096 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.315 0.370 0.098 0.110 0.309 0.210 0.149 0.027 0.060 0.097 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.316 0.371 0.099 0.110 0.310 0.210 0.149 0.028 0.061 0.098 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.317 0.372 0.100 0.110 0.311 0.210 0.149 0.029 0.062 0.099 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.318 0.373 0.101 0.110 0.312 0.210 0.149 0.030 0.063 0.100 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.319 0.374 0.102 0.110 0.313 0.210 0.149 0.031 0.064 0.101 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.320 0.375 0.103 0.110 0.314 0.210 0.149 0.032 0.065 0.102 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.321 0.376 0.104 0.110 0.315 0.210 0.149 0.033 0.066 0.103 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.322 0.377 0.105 0.110 0.316 0.210 0.149 0.034 0.067 0.104 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.323 0.378 0.106 0.110 0.317 0.210 0.149 0.035 0.068 0.105 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.324 0.379 0.107 0.110 0.318 0.210 0.149 0.036 0.069 0.106 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.325 0.380 0.108 0.110 0.319 0.210 0.149 0.037 0.070 0.107 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.326 0.381 0.109 0.110 0.320 0.210 0.149 0.038 0.071 0.108 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.327 0.382 0.110 0.110 0.321 0.210 0.149 0.039 0.072 0.109 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.328 0.383 0.111 0.110 0.322 0.210 0.149 0.040 0.073 0.110 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.329 0.384 0.112 0.110 0.323 0.210 0.149 0.041 0.074 0.111 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.330 0.385 0.113 0.110 0.324 0.210 0.149 0.042 0.075 0.112 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.331 0.386 0.114 0.110 0.325 0.210 0.149 0.043 0.076 0.113 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.332 0.387 0.115 0.110 0.326 0.210 0.149 0.044 0.077 0.114 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.333 0.388 0.116 0.110 0.327 0.210 0.149 0.045 0.078 0.115 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.334 0.389 0.117 0.110 0.328 0.210 0.149 0.046 0.079 0.116 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.335 0.390 0.118 0.110 0.329 0.210 0.149 0.047 0.080 0.117 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.336 0.391 0.119 0.110 0.330 0.210 0.149 0.048 0.081 0.118 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.337 0.392 0.120 0.110 0.331 0.210 0.149 0.049 0.082 0.119 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.338 0.393 0.121 0.110 0.332 0.210 0.149 0.050 0.083 0.120 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.339 0.394 0.122 0.110 0.333 0.210 0.149 0.051 0.084 0.121 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.340 0.395 0.123 0.110 0.334 0.210 0.149 0.052 0.085 0.122 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.341 0.396 0.124 0.110 0.335 0.210 0.149 0.053 0.086 0.123 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.342 0.397 0.125 0.110 0.336 0.210 0.149 0.054 0.087 0.124 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.343 0.398 0.126 0.110 0.337 0.210 0.149 0.055 0.088 0.125 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.344 0.399 0.127 0.110 0.338 0.210 0.149 0.056 0.089 0.126 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.345 0.400 0.128 0.110 0.339 0.210 0.149 0.057 0.090 0.127 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.346 0.401 0.129 0.110 0.340 0.210 0.149 0.058 0.091 0.128 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.347 0.402 0.130 0.110 0.341 0.210 0.149 0.059 0.092 0.129 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.348 0.403 0.131 0.110 0.342 0.210 0.149 0.060 0.093 0.130 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.349 0.404 0.132 0.110 0.343 0.210 0.149 0.061 0.094 0.131 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.350 0.405 0.133 0.110 0.344 0.210 0.149 0.062 0.095 0.132 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.351 0.406 0.134 0.110 0.345 0.210 0.149 0.063 0.096 0.133 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

1.352 0.407 0.135 0.110 0.346 0.210 0.149 0.064 0.097 0.134 0.103 0.109 0.098 0.098 0.104 0.108 0.107 0.107 0.107 0.107

DATE 6-MAR-78 PROJECT NO P41C-NOC

Y AMO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT

TC-532 167 1.051

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 203

0.00 12 203

PSAR 2049.2

Y 11.218

Z -2.947

TT 86.6

VI 1080.0

Q 543.9

P 703.0

ALFAS 0.02

W 9

X 10

Y 11

Z 12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

DPHI 1.304 0.165 0.092-0.105-0.293-0.210-0.150-0.038-0.031-0.069-0.090-0.100-0.096-0.092-0.088-0.106-0.131-0.134-0.171

1.306 0.166 0.093-0.105-0.294-0.215-0.149-0.040-0.028-0.068-0.090-0.099-0.094-0.091-0.085-0.101-0.128-0.154-0.174

1.304 0.166 0.093-0.105-0.294-0.215-0.150-0.041-0.029-0.088-0.090-0.099-0.094-0.091-0.085-0.101-0.128-0.154-0.174

1.302 0.167 0.095-0.104-0.293-0.214-0.149-0.041-0.035-0.071-0.091-0.099-0.094-0.092-0.089-0.102-0.132-0.155-0.174

1.304 0.171 0.098-0.101-0.291-0.213-0.149-0.041-0.042-0.075-0.094-0.100-0.097-0.092-0.089-0.106-0.137-0.158-0.173

1.303 0.172 0.099-0.100-0.291-0.213-0.149-0.041-0.048-0.080-0.097-0.101-0.098-0.093-0.092-0.089-0.106-0.137-0.158-0.173

1.302 0.175 0.102-0.098-0.288-0.210-0.135-0.055-0.055-0.084-0.100-0.101-0.098-0.094-0.095-0.095-0.115-0.148-0.160-0.172

1.302 0.178 0.104-0.096-0.286-0.207-0.173-0.055-0.064-0.089-0.102-0.101-0.098-0.095-0.095-0.115-0.148-0.160-0.172

1.301 0.181 0.107-0.093-0.284-0.205-0.110-0.065-0.072-0.094-0.105-0.102-0.100-0.096-0.103-0.127-0.163-0.180-0.176

1.301 0.187 0.115-0.089-0.280-0.198-0.084-0.075-0.087-0.103-0.105-0.099-0.099-0.099-0.111-0.137-0.175-0.180-0.176

1.300 0.189 0.115-0.087-0.278-0.194-0.083-0.098-0.099-0.112-0.104-0.095-0.093-0.102-0.118-0.148-0.186-0.195-0.115

1.302 0.195 0.120-0.083-0.275-0.187-0.052-0.103-0.112-0.121-0.100-0.086-0.093-0.103-0.125-0.159-0.195-0.198-0.105

1.305 0.400 0.125-0.078-0.270-0.178-0.051-0.110-0.124-0.139-0.099-0.081-0.089-0.102-0.131-0.171-0.204-0.198-0.059

1.302 0.401 0.126-0.077-0.269-0.172-0.051-0.110-0.132-0.135-0.104-0.084-0.089-0.104-0.138-0.180-0.211-0.195-0.054

1.304 0.406 0.131-0.072-0.264-0.151-0.062-0.128-0.144-0.145-0.119-0.090-0.088-0.103-0.170-0.196-0.219-0.170-0.092

1.306 0.410 0.133-0.068-0.259-0.121-0.059-0.133-0.150-0.130-0.096-0.086-0.102-0.152-0.204-0.223-0.174-0.085

1.302 0.409 0.139-0.066-0.259-0.089-0.068-0.138-0.158-0.158-0.139-0.104-0.086-0.103-0.159-0.213-0.238-0.111-0.090

1.303 0.411 0.140-0.065-0.258-0.068-0.070-0.140-0.162-0.153-0.145-0.109-0.085-0.104-0.163-0.218-0.230-0.101-0.088

1.302 0.410 0.140-0.065-0.258-0.062-0.071-0.140-0.165-0.155-0.149-0.111-0.088-0.104-0.165-0.220-0.231-0.095-0.087

1.306 0.412 0.141-0.063-0.258-0.065-0.076-0.140-0.161-0.152-0.148-0.109-0.088-0.102-0.163-0.218-0.239-0.093-0.085

1.301 0.407 0.137-0.066-0.257-0.094-0.075-0.133-0.155-0.153-0.144-0.103-0.088-0.101-0.158-0.214-0.225-0.110-0.086

1.303 0.405 0.133-0.069-0.261-0.123-0.076-0.134-0.151-0.147-0.137-0.096-0.088-0.100-0.154-0.210-0.223-0.140-0.086

1.304 0.402 0.129-0.073-0.265-0.153-0.065-0.128-0.143-0.139-0.124-0.086-0.089-0.098-0.170-0.200-0.217-0.170-0.087

1.303 0.400 0.123-0.075-0.266-0.162-0.064-0.123-0.139-0.134-0.116-0.082-0.088-0.098-0.142-0.194-0.214-0.190-0.088

1.303 0.397 0.125-0.076-0.268-0.170-0.053-0.118-0.130-0.124-0.109-0.076-0.088-0.096-0.135-0.184-0.206-0.192-0.089

1.305 0.394 0.122-0.080-0.271-0.178-0.052-0.118-0.130-0.121-0.117-0.109-0.078-0.091-0.154-0.174-0.199-0.200-0.094

1.304 0.397 0.115-0.085-0.276-0.181-0.064-0.094-0.094-0.104-0.106-0.113-0.098-0.095-0.156-0.157-0.186-0.190-0.106

1.304 0.395 0.112-0.088-0.278-0.193-0.079-0.088-0.095-0.104-0.114-0.095-0.098-0.156-0.157-0.186-0.190-0.106

1.304 0.390 0.103-0.092-0.282-0.200-0.103-0.073-0.079-0.088-0.095-0.104-0.114-0.095-0.098-0.156-0.157-0.186-0.190-0.106

1.305 0.376 0.103-0.096-0.285-0.204-0.124-0.064-0.068-0.091-0.105-0.103-0.097-0.091-0.156-0.157-0.186-0.190-0.106

1.304 0.375 0.101-0.097-0.286-0.205-0.135-0.058-0.060-0.086-0.101-0.102-0.094-0.091-0.156-0.157-0.186-0.190-0.106

1.304 0.370 0.097-0.101-0.290-0.209-0.146-0.051-0.049-0.079-0.097-0.102-0.093-0.091-0.156-0.157-0.186-0.190-0.106

1.303 0.367 0.094-0.103-0.292-0.212-0.155-0.044-0.041-0.075-0.093-0.101-0.093-0.090-0.156-0.157-0.186-0.190-0.106

1.303 0.367 0.094-0.103-0.292-0.212-0.155-0.044-0.041-0.075-0.093-0.101-0.093-0.090-0.156-0.157-0.186-0.190-0.106

1.302 0.363 0.093-0.105-0.292-0.212-0.153-0.044-0.032-0.069-0.089-0.098-0.091-0.156-0.157-0.186-0.190-0.106

1.303 0.364 0.090-0.107-0.295-0.215-0.154-0.044-0.031-0.069-0.090-0.101-0.093-0.091-0.156-0.157-0.186-0.190-0.106

1.304 0.363 0.090-0.107-0.296-0.216-0.154-0.042-0.027-0.067-0.090-0.100-0.093-0.092-0.156-0.157-0.186-0.190-0.106

GRIFICE 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

XS FT 0.0278 0.0553 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CNA -0.3088 -0.5348 -0.5851 -0.5767 -1.8119 -1.6450 -1.6918 2.1811 1.6440

CYX -0.0110 -0.0387 -0.0631 -0.0748 -0.2342 -0.1021 -0.2416 0.2665 0.8975

CAX 3.9892 1.3850 -0.7934 -0.9198 0.0000 0.0000 0.0000 0.0000 0.0000

GRIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNA 0.7146 -0.0860 -0.1657 -0.2667 1.2224 1.8659 -1.6629 -1.2491 -0.8382

CYX 0.1691 -0.0498 -0.0579 -0.0738 0.1265 0.3355 0.1915 -0.0298 -0.2637

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CN 0.061 CY 0.009 CA 0.165 CLM -0.285 CLW -0.017



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEX10-6 PT

TC-532 148 1.053 3.004 1415.0 701.6 545.0 1001.0 86.6

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA CONFIG SURVEY 204 ALPHA5 ALFA5 PBAP X Y Z  
0.00 12 0.02 2049.3 12.718 0.000 -2.947

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.304	0.354	0.084	-0.112	-0.289	-0.253	-0.185	-0.140	-0.101	-0.093	-0.094	-0.110	-0.127	-0.147	-0.155	-0.124	-0.134	-0.148	-0.159
3	-164.9	1.305	0.356	0.086	-0.111	-0.298	-0.253	-0.184	-0.140	-0.100	-0.091	-0.093	-0.109	-0.126	-0.146	-0.150	-0.126	-0.136	-0.148	-0.161
4	-155.0	1.305	0.358	0.087	-0.109	-0.298	-0.255	-0.184	-0.140	-0.103	-0.092	-0.094	-0.110	-0.126	-0.146	-0.152	-0.126	-0.136	-0.147	-0.163
5	-144.9	1.306	0.362	0.089	-0.109	-0.298	-0.258	-0.183	-0.140	-0.108	-0.098	-0.099	-0.113	-0.130	-0.157	-0.151	-0.128	-0.139	-0.151	-0.166
6	-135.1	1.301	0.362	0.088	-0.112	-0.305	-0.265	-0.193	-0.148	-0.116	-0.110	-0.114	-0.137	-0.151	-0.167	-0.172	-0.086	-0.096	-0.121	-0.145
7	-125.0	1.302	0.363	0.090	-0.110	-0.304	-0.266	-0.194	-0.148	-0.119	-0.112	-0.117	-0.130	-0.153	-0.167	-0.170	-0.080	-0.096	-0.120	-0.147
8	-115.0	1.304	0.375	0.095	-0.103	-0.298	-0.265	-0.191	-0.141	-0.117	-0.104	-0.110	-0.127	-0.157	-0.173	-0.179	-0.135	-0.152	-0.170	-0.198
9	-105.0	1.305	0.380	0.103	-0.103	-0.298	-0.267	-0.191	-0.145	-0.121	-0.107	-0.113	-0.133	-0.163	-0.175	-0.175	-0.139	-0.155	-0.174	-0.203
10	-95.0	1.305	0.386	0.105	-0.101	-0.298	-0.270	-0.191	-0.145	-0.126	-0.110	-0.114	-0.140	-0.168	-0.177	-0.173	-0.142	-0.160	-0.178	-0.208
11	-85.0	1.304	0.392	0.109	-0.099	-0.298	-0.272	-0.199	-0.147	-0.129	-0.115	-0.118	-0.148	-0.176	-0.184	-0.174	-0.145	-0.165	-0.183	-0.213
12	-74.9	1.304	0.400	0.114	-0.097	-0.299	-0.276	-0.199	-0.147	-0.130	-0.119	-0.122	-0.160	-0.183	-0.190	-0.180	-0.148	-0.169	-0.187	-0.217
13	-65.0	1.306	0.411	0.124	-0.093	-0.298	-0.283	-0.206	-0.147	-0.131	-0.117	-0.130	-0.177	-0.195	-0.203	-0.188	-0.151	-0.174	-0.193	-0.223
14	-54.9	1.304	0.417	0.127	-0.093	-0.299	-0.287	-0.206	-0.151	-0.131	-0.115	-0.136	-0.186	-0.203	-0.200	-0.180	-0.147	-0.170	-0.189	-0.219
15	-45.1	1.307	0.423	0.130	-0.092	-0.300	-0.292	-0.215	-0.160	-0.134	-0.114	-0.144	-0.197	-0.211	-0.208	-0.186	-0.150	-0.173	-0.192	-0.222
16	-35.0	1.305	0.429	0.138	-0.089	-0.299	-0.293	-0.213	-0.178	-0.133	-0.114	-0.152	-0.206	-0.215	-0.213	-0.190	-0.156	-0.180	-0.199	-0.229
17	-25.1	1.305	0.434	0.141	-0.088	-0.299	-0.297	-0.214	-0.208	-0.136	-0.111	-0.163	-0.216	-0.227	-0.226	-0.203	-0.167	-0.191	-0.210	-0.240
18	-15.0	1.307	0.438	0.148	-0.085	-0.299	-0.296	-0.213	-0.228	-0.137	-0.114	-0.170	-0.220	-0.229	-0.228	-0.205	-0.168	-0.192	-0.211	-0.241
19	-5.0	1.307	0.439	0.153	-0.083	-0.298	-0.298	-0.214	-0.233	-0.137	-0.117	-0.174	-0.222	-0.229	-0.228	-0.205	-0.168	-0.192	-0.211	-0.241
20	5.0	1.307	0.440	0.153	-0.082	-0.297	-0.298	-0.219	-0.240	-0.138	-0.117	-0.176	-0.223	-0.229	-0.228	-0.205	-0.168	-0.192	-0.211	-0.241
21	15.1	1.306	0.438	0.151	-0.082	-0.297	-0.296	-0.219	-0.235	-0.137	-0.117	-0.175	-0.221	-0.226	-0.226	-0.203	-0.167	-0.191	-0.210	-0.240
22	24.9	1.306	0.434	0.147	-0.084	-0.297	-0.298	-0.219	-0.221	-0.136	-0.116	-0.172	-0.217	-0.224	-0.224	-0.203	-0.167	-0.191	-0.210	-0.240
23	35.0	1.305	0.429	0.143	-0.086	-0.298	-0.300	-0.218	-0.230	-0.136	-0.115	-0.168	-0.212	-0.220	-0.220	-0.203	-0.167	-0.191	-0.210	-0.240
24	45.0	1.307	0.422	0.134	-0.090	-0.299	-0.299	-0.217	-0.188	-0.133	-0.113	-0.146	-0.199	-0.211	-0.210	-0.203	-0.167	-0.191	-0.210	-0.240
25	54.9	1.306	0.414	0.128	-0.091	-0.298	-0.296	-0.217	-0.185	-0.131	-0.113	-0.146	-0.199	-0.211	-0.210	-0.203	-0.167	-0.191	-0.210	-0.240
26	64.9	1.306	0.410	0.126	-0.092	-0.298	-0.291	-0.215	-0.181	-0.129	-0.112	-0.138	-0.182	-0.200	-0.200	-0.195	-0.168	-0.192	-0.211	-0.241
27	74.9	1.308	0.402	0.120	-0.095	-0.298	-0.287	-0.215	-0.181	-0.129	-0.112	-0.138	-0.182	-0.200	-0.200	-0.195	-0.168	-0.192	-0.211	-0.241
28	84.9	1.306	0.393	0.117	-0.099	-0.300	-0.280	-0.215	-0.181	-0.129	-0.112	-0.138	-0.182	-0.200	-0.200	-0.195	-0.168	-0.192	-0.211	-0.241
29	95.0	1.307	0.387	0.108	-0.100	-0.298	-0.273	-0.204	-0.153	-0.128	-0.109	-0.120	-0.169	-0.187	-0.195	-0.180	-0.148	-0.170	-0.189	-0.219
30	105.0	1.308	0.383	0.106	-0.101	-0.298	-0.270	-0.203	-0.153	-0.124	-0.105	-0.116	-0.143	-0.170	-0.170	-0.160	-0.135	-0.158	-0.177	-0.207
31	115.0	1.309	0.374	0.097	-0.106	-0.300	-0.267	-0.204	-0.153	-0.119	-0.105	-0.120	-0.133	-0.158	-0.172	-0.160	-0.134	-0.153	-0.174	-0.208
32	125.0	1.307	0.369	0.095	-0.107	-0.300	-0.265	-0.203	-0.151	-0.115	-0.099	-0.107	-0.132	-0.154	-0.171	-0.160	-0.134	-0.150	-0.170	-0.208
33	134.9	1.306	0.363	0.090	-0.109	-0.300	-0.260	-0.193	-0.147	-0.107	-0.095	-0.100	-0.127	-0.148	-0.165	-0.154	-0.128	-0.143	-0.163	-0.193
34	144.9	1.304	0.360	0.086	-0.111	-0.301	-0.261	-0.193	-0.146	-0.105	-0.098	-0.100	-0.119	-0.140	-0.163	-0.160	-0.132	-0.141	-0.160	-0.190
35	154.9	1.305	0.357	0.088	-0.111	-0.300	-0.259	-0.192	-0.144	-0.102	-0.092	-0.097	-0.116	-0.138	-0.160	-0.160	-0.130	-0.148	-0.167	-0.197
36	164.9	1.304	0.356	0.085	-0.111	-0.300	-0.258	-0.192	-0.144	-0.101	-0.091	-0.096	-0.114	-0.138	-0.160	-0.160	-0.130	-0.148	-0.167	-0.197
37	174.9	1.305	0.355	0.085	-0.110	-0.299	-0.256	-0.191	-0.140	-0.099	-0.090	-0.094	-0.111	-0.131	-0.155	-0.155	-0.129	-0.133	-0.151	-0.174

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	-0.5558	-0.7256	-0.3979	-0.0725	0.7067	0.4167	1.0863	0.5602	1.0271
CY	-0.0061	-0.0366	-0.0197	-0.0115	0.0953	0.1981	0.1605	-0.0683	-0.0349
CX	0.0660	1.3795	-0.8982	-0.9903	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	1.1813	1.7849	1.5660	-1.6317	-0.5867	0.6174	0.9736	1.0770	1.1771
CY	0.0916	0.1127	0.0848	-0.1940	-0.1583	0.1091	0.1504	0.2661	0.2924
CX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CW 0.262 CY 0.034 CA 0.162 CLW -0.474 CLW -0.063

DATE 6-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

AROLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6

TC-532 196 1.052 3.000 1413.5 P 702.5 543.7 1090.2 86.6

DATE 3-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY

2.00 12 201

ALFA 2.01

PRAR 2048.0

X 11.218

Y 0.000

Z -2.297

PNT DPMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.305 0.198 0.130 0.070 0.261 0.160 0.089 0.011 0.042 0.063 0.051 0.037 0.041 0.055 0.071 0.091 0.114 0.090 0.070

1.305 0.199 0.130 0.071 0.263 0.162 0.090 0.012 0.043 0.064 0.052 0.038 0.042 0.056 0.072 0.092 0.115 0.091 0.071

1.306 0.199 0.131 0.070 0.262 0.162 0.088 0.011 0.043 0.065 0.055 0.037 0.041 0.054 0.072 0.093 0.114 0.089 0.069

1.306 0.199 0.130 0.070 0.263 0.161 0.088 0.006 0.043 0.066 0.055 0.037 0.043 0.056 0.074 0.094 0.115 0.087 0.071

1.306 0.198 0.130 0.070 0.260 0.160 0.078 0.003 0.043 0.066 0.053 0.037 0.044 0.057 0.078 0.095 0.116 0.082 0.073

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1.306 0.198 0.130 0.070 0.260 0.160 0.078 0.003 0.043 0.066 0.053 0.037 0.044 0.057 0.078 0.095 0.116 0.082 0.073

ORIFICE

XS FT

0.0278

0.0555

0.0833

0.1110

0.1388

0.1665

0.1943

0.2220

0.2498

0.2775

0.3053

0.3330

0.3608

0.3885

0.4163

0.4440

0.4718

0.4995

0.5273

0.5550

0.5828

0.6105

0.6383

0.6660

0.6938

0.7215

0.7493

0.7770

0.8048

0.8325

0.8603

0.8880

0.9158

0.9435

0.9713

0.9990

1.0268

1.0545

1.0823

1.1100

1.1378

1.1655

1.1933

1.2210

1.2488

1.2765

1.3043

1.3320

1.3598

1.3875

1.4153

1.4430

1.4708

1.4985

1.5263

1.5540

1.5818

1.6095

1.6373

1.6650

1.6928

1.7205

1.7483

1.7760

1.8038

1.8315

1.8593

1.8870

1.9148

1.9425

1.9703

1.9980

2.0258

2.0535

2.0813

2.1090

2.1368

2.1645

2.1923

2.2200

2.2478

2.2755

2.3033

2.3310

2.3588

2.3865

2.4143

2.4420

2.4698

2.4975

2.5253

2.5530

2.5808

2.6085

2.6363

2.6640

2.6918

2.7195

2.7473

2.7750

2.8028

2.8305

2.8583

2.8860

2.9138

2.9415

2.9693

2.9970

3.0248

3.0525

3.0803

3.1080

3.1358

3.



DATE 6-MAR-78 PROJECT NO P41C-80C

ARG, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH MEX10-6

PT 1413.1

P 702.8

Q 543.3

TT 86.7

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

TC-532

197

1.051

2.998

2.01

ALFAS

202

SURVEY

202

2.01

ALFAS

202

2.01

ALFAS

202

2.01

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202

2.01

ALFAS

202

2.01

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1.306	0.401	0.131	0.071	0.284	0.167	0.094	0.021	0.028	0.035	0.058	0.045	0.038	0.049	0.060	0.086	0.108	0.102	0.075	
2	-174.8	1.307	0.403	0.132	0.072	0.284	0.167	0.094	0.022	0.025	0.034	0.057	0.047	0.038	0.046	0.058	0.081	0.107	0.104	0.075
3	-164.9	1.302	0.400	0.130	0.072	0.285	0.171	0.104	0.015	0.027	0.036	0.057	0.048	0.039	0.047	0.059	0.082	0.108	0.104	0.077
4	-154.9	1.304	0.400	0.131	0.071	0.283	0.169	0.102	0.015	0.028	0.035	0.055	0.045	0.038	0.046	0.055	0.083	0.109	0.104	0.076
5	-144.9	1.306	0.401	0.130	0.071	0.283	0.169	0.089	0.008	0.032	0.038	0.054	0.044	0.037	0.045	0.053	0.062	0.085	0.111	0.102
6	-135.1	1.307	0.400	0.129	0.071	0.282	0.167	0.076	0.007	0.037	0.041	0.054	0.043	0.041	0.048	0.056	0.060	0.084	0.114	0.091
7	-125.0	1.303	0.398	0.128	0.072	0.280	0.165	0.065	0.015	0.043	0.043	0.055	0.043	0.041	0.051	0.071	0.097	0.119	0.091	0.075
8	-115.0	1.303	0.397	0.127	0.071	0.279	0.162	0.052	0.016	0.052	0.047	0.055	0.044	0.045	0.054	0.078	0.105	0.124	0.079	0.075
9	-105.0	1.304	0.396	0.126	0.071	0.277	0.158	0.045	0.015	0.061	0.047	0.057	0.045	0.048	0.058	0.089	0.117	0.130	0.068	0.075
10	-95.0	1.302	0.395	0.127	0.069	0.274	0.152	0.036	0.014	0.070	0.047	0.056	0.046	0.048	0.061	0.097	0.125	0.134	0.058	0.075
11	-85.0	1.302	0.396	0.128	0.067	0.279	0.148	0.034	0.014	0.075	0.078	0.071	0.053	0.045	0.047	0.065	0.104	0.134	0.136	0.047
12	-74.8	1.303	0.397	0.130	0.064	0.275	0.121	0.027	0.015	0.093	0.073	0.047	0.043	0.043	0.073	0.122	0.149	0.131	0.038	0.075
13	-65.0	1.305	0.398	0.133	0.061	0.274	0.088	0.008	0.118	0.103	0.070	0.033	0.037	0.048	0.080	0.135	0.161	0.117	0.028	0.073
14	-54.9	1.302	0.398	0.134	0.059	0.274	0.044	0.080	0.125	0.116	0.089	0.022	0.034	0.048	0.091	0.150	0.172	0.087	0.023	0.073
15	-45.1	1.306	0.401	0.138	0.056	0.274	0.010	0.097	0.143	0.127	0.075	0.014	0.035	0.050	0.099	0.164	0.183	0.056	0.018	0.071
16	-35.1	1.307	0.402	0.139	0.054	0.266	0.007	0.097	0.150	0.133	0.05	0.008	0.034	0.051	0.105	0.176	0.191	0.031	0.015	0.070
17	-25.1	1.304	0.401	0.140	0.052	0.260	0.014	0.104	0.150	0.136	0.030	0.004	0.034	0.051	0.109	0.178	0.194	0.017	0.011	0.069
18	-15.0	1.304	0.404	0.143	0.050	0.189	0.010	0.121	0.163	0.141	0.119	0.004	0.033	0.051	0.114	0.186	0.202	0.003	0.003	0.068
19	-5.0	1.308	0.404	0.140	0.051	0.189	0.008	0.121	0.163	0.141	0.119	0.004	0.033	0.051	0.114	0.186	0.202	0.003	0.003	0.068
20	5.0	1.304	0.401	0.140	0.051	0.189	0.008	0.121	0.163	0.141	0.119	0.004	0.033	0.051	0.114	0.186	0.202	0.003	0.003	0.068
21	15.0	1.301	0.400	0.138	0.052	0.189	0.008	0.119	0.160	0.133	0.110	0.008	0.030	0.049	0.117	0.188	0.202	0.003	0.003	0.067
22	25.0	1.301	0.398	0.137	0.054	0.201	0.007	0.119	0.140	0.125	0.093	0.013	0.038	0.048	0.111	0.179	0.197	0.044	0.009	0.067
23	35.0	1.306	0.400	0.136	0.057	0.214	0.007	0.108	0.130	0.115	0.081	0.018	0.037	0.046	0.102	0.167	0.189	0.058	0.011	0.066
24	45.0	1.304	0.398	0.133	0.059	0.225	0.041	0.089	0.128	0.104	0.078	0.027	0.038	0.043	0.091	0.152	0.178	0.093	0.015	0.067
25	54.9	1.302	0.397	0.132	0.061	0.233	0.077	0.079	0.118	0.096	0.084	0.041	0.034	0.048	0.084	0.141	0.170	0.120	0.015	0.066
26	64.9	1.306	0.398	0.131	0.063	0.243	0.108	0.067	0.103	0.087	0.086	0.050	0.040	0.048	0.076	0.129	0.161	0.135	0.022	0.065
27	74.9	1.306	0.398	0.132	0.064	0.243	0.110	0.067	0.095	0.082	0.085	0.053	0.041	0.043	0.072	0.121	0.156	0.137	0.022	0.065
28	84.9	1.305	0.398	0.131	0.065	0.249	0.136	0.044	0.078	0.070	0.080	0.056	0.042	0.043	0.064	0.107	0.144	0.140	0.033	0.064
29	95.0	1.305	0.400	0.131	0.066	0.251	0.144	0.043	0.068	0.063	0.075	0.057	0.041	0.043	0.060	0.080	0.135	0.137	0.045	0.063
30	105.0	1.304	0.399	0.132	0.067	0.254	0.150	0.042	0.058	0.055	0.071	0.057	0.041	0.043	0.057	0.080	0.125	0.133	0.055	0.063
31	115.0	1.304	0.400	0.132	0.067	0.256	0.150	0.042	0.044	0.048	0.048	0.057	0.039	0.038	0.053	0.081	0.108	0.129	0.060	0.064
32	125.0	1.307	0.402	0.133	0.068	0.268	0.150	0.042	0.031	0.042	0.042	0.062	0.057	0.040	0.031	0.051	0.075	0.106	0.070	0.064
33	134.9	1.306	0.401	0.131	0.070	0.282	0.165	0.068	0.013	0.035	0.038	0.058	0.041	0.035	0.049	0.088	0.097	0.118	0.091	0.070
34	144.9	1.308	0.402	0.132	0.070	0.284	0.165	0.079	0.003	0.031	0.031	0.057	0.043	0.038	0.047	0.063	0.091	0.114	0.098	0.071
35	154.9	1.306	0.401	0.132	0.071	0.284	0.165	0.089	0.011	0.026	0.032	0.056	0.043	0.038	0.045	0.059	0.084	0.109	0.101	0.075
36	164.9	1.305	0.402	0.132	0.071	0.283	0.168	0.099	0.019	0.024	0.031	0.056	0.044	0.037	0.044	0.057	0.082	0.107	0.103	0.076
37	174.9	1.305	0.402	0.132	0.071	0.283	0.168	0.099	0.019	0.024	0.031	0.056	0.044	0.037	0.044	0.057	0.082	0.107	0.103	0.076

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.0040	-0.0081	-0.2688	-1.0584	-2.9533	-0.3301	2.8632	1.8219	0.7020
CY	-0.0089	-0.0316	-0.0579	-0.1585	-0.4442	-0.0408	0.4932	0.1367	0.1955
CAX	4.1289	1.8212	-0.5809	-0.7928	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	-0.8093	-0.2102	0.1973	1.0997	2.0791	1.9327	-1.3845	-1.6044	-0.0827
CY	-0.0195	-0.0993	-0.0511	0.1573	0.3403	0.4412	-0.0355	-0.4333	-0.1690
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0.005 CA 0.005 CLM 0.005

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.  
AEDC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 2.996 1412.1 PT P 702.5 542.8 VI 1089.5 TT 2-17-78 DATE AEDC PROPULSION WIND TUNNEL  
TC-512 198 1.051 2.996 1412.1 PT P 702.5 542.8 VI 1089.5 TT 2-17-78 DATE AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA CONFIG SURVEY 201 ALFAS 2.01 P8AR 2048.0 X 11.218 Y 0.000 Z -2.947

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.306	0.405	0.134	-0.070	-0.265	-0.177	-0.106	0.017	-0.008	-0.018	-0.050	-0.050	-0.040	-0.039	-0.044	-0.068	-0.092	-0.105	-0.098
3	-174.9	1.306	0.405	0.133	-0.071	-0.266	-0.181	-0.106	0.018	-0.008	-0.018	-0.050	-0.051	-0.040	-0.039	-0.044	-0.068	-0.092	-0.105	-0.101
4	-155.0	1.305	0.404	0.132	-0.071	-0.266	-0.182	-0.107	0.017	-0.007	-0.018	-0.050	-0.052	-0.041	-0.039	-0.044	-0.065	-0.093	-0.108	-0.100
5	-154.9	1.303	0.402	0.131	-0.071	-0.265	-0.181	-0.106	0.008	-0.008	-0.019	-0.051	-0.051	-0.041	-0.039	-0.044	-0.066	-0.095	-0.108	-0.098
6	-135.1	1.305	0.402	0.130	-0.071	-0.265	-0.179	-0.105	0.003	-0.010	-0.042	-0.050	-0.050	-0.041	-0.039	-0.044	-0.068	-0.098	-0.108	-0.093
7	-135.0	1.303	0.400	0.128	-0.072	-0.264	-0.177	-0.093	-0.008	-0.016	-0.047	-0.051	-0.050	-0.041	-0.042	-0.050	-0.073	-0.104	-0.111	-0.087
8	-115.1	1.304	0.399	0.128	-0.071	-0.262	-0.173	-0.080	-0.015	-0.021	-0.050	-0.050	-0.047	-0.041	-0.043	-0.053	-0.078	-0.108	-0.111	-0.080
9	-105.0	1.306	0.399	0.128	-0.071	-0.261	-0.170	-0.066	-0.024	-0.027	-0.055	-0.049	-0.044	-0.041	-0.045	-0.057	-0.084	-0.114	-0.111	-0.074
10	-95.0	1.305	0.397	0.126	-0.071	-0.260	-0.166	-0.045	-0.035	-0.036	-0.061	-0.048	-0.041	-0.041	-0.048	-0.066	-0.093	-0.121	-0.108	-0.070
11	-85.0	1.305	0.396	0.126	-0.070	-0.259	-0.161	-0.031	-0.044	-0.044	-0.066	-0.048	-0.039	-0.041	-0.050	-0.070	-0.101	-0.127	-0.100	-0.066
12	-74.9	1.305	0.395	0.126	-0.070	-0.258	-0.157	-0.031	-0.054	-0.054	-0.072	-0.051	-0.040	-0.041	-0.052	-0.077	-0.111	-0.133	-0.089	-0.064
13	-65.0	1.305	0.395	0.127	-0.068	-0.253	-0.146	-0.025	-0.067	-0.069	-0.077	-0.056	-0.044	-0.045	-0.056	-0.088	-0.126	-0.142	-0.060	-0.061
14	-54.9	1.307	0.396	0.128	-0.066	-0.250	-0.137	-0.024	-0.078	-0.078	-0.081	-0.059	-0.047	-0.045	-0.058	-0.095	-0.134	-0.157	-0.042	-0.060
15	-45.0	1.306	0.396	0.128	-0.064	-0.246	-0.123	-0.035	-0.085	-0.088	-0.086	-0.056	-0.051	-0.045	-0.061	-0.103	-0.143	-0.152	-0.026	-0.057
16	-35.1	1.304	0.395	0.130	-0.061	-0.242	-0.103	-0.044	-0.094	-0.099	-0.094	-0.054	-0.053	-0.041	-0.066	-0.111	-0.153	-0.158	-0.013	-0.056
17	-25.1	1.306	0.396	0.131	-0.060	-0.240	-0.083	-0.044	-0.102	-0.109	-0.109	-0.052	-0.053	-0.041	-0.070	-0.120	-0.159	-0.162	-0.006	-0.053
18	-15.0	1.306	0.396	0.131	-0.058	-0.236	-0.060	-0.052	-0.108	-0.115	-0.103	-0.049	-0.047	-0.041	-0.073	-0.126	-0.164	-0.164	-0.000	-0.053
19	-5.0	1.306	0.397	0.134	-0.057	-0.234	-0.045	-0.051	-0.109	-0.118	-0.103	-0.046	-0.043	-0.041	-0.075	-0.131	-0.167	-0.167	-0.000	-0.052
20	5.0	1.307	0.397	0.134	-0.057	-0.234	-0.039	-0.040	-0.111	-0.119	-0.104	-0.046	-0.041	-0.040	-0.078	-0.133	-0.170	-0.166	-0.000	-0.052
21	15.0	1.306	0.396	0.134	-0.057	-0.234	-0.041	-0.040	-0.111	-0.116	-0.105	-0.046	-0.042	-0.040	-0.078	-0.132	-0.170	-0.166	-0.000	-0.052
22	24.9	1.306	0.395	0.131	-0.058	-0.236	-0.041	-0.059	-0.108	-0.113	-0.105	-0.046	-0.040	-0.040	-0.076	-0.130	-0.169	-0.166	-0.000	-0.052
23	35.0	1.306	0.396	0.132	-0.059	-0.237	-0.064	-0.059	-0.105	-0.109	-0.105	-0.050	-0.053	-0.040	-0.073	-0.128	-0.167	-0.166	-0.001	-0.051
24	45.0	1.305	0.394	0.131	-0.061	-0.242	-0.093	-0.048	-0.092	-0.097	-0.099	-0.055	-0.054	-0.040	-0.066	-0.111	-0.160	-0.161	-0.001	-0.052
25	54.9	1.306	0.395	0.129	-0.063	-0.245	-0.105	-0.048	-0.092	-0.091	-0.098	-0.060	-0.054	-0.040	-0.063	-0.110	-0.157	-0.159	-0.012	-0.052
26	64.9	1.304	0.393	0.128	-0.066	-0.250	-0.127	-0.037	-0.077	-0.077	-0.083	-0.061	-0.047	-0.040	-0.058	-0.103	-0.145	-0.143	-0.032	-0.054
27	74.9	1.305	0.395	0.128	-0.066	-0.250	-0.137	-0.035	-0.069	-0.068	-0.076	-0.058	-0.041	-0.038	-0.054	-0.091	-0.135	-0.136	-0.049	-0.053
28	84.9	1.304	0.395	0.128	-0.067	-0.253	-0.145	-0.034	-0.061	-0.060	-0.071	-0.057	-0.038	-0.031	-0.050	-0.083	-0.124	-0.120	-0.071	-0.054
29	95.0	1.306	0.398	0.130	-0.067	-0.254	-0.150	-0.028	-0.055	-0.053	-0.066	-0.055	-0.035	-0.030	-0.048	-0.077	-0.117	-0.115	-0.088	-0.054
30	105.0	1.306	0.399	0.129	-0.069	-0.257	-0.157	-0.029	-0.048	-0.046	-0.063	-0.058	-0.037	-0.030	-0.047	-0.073	-0.108	-0.100	-0.057	-0.057
31	114.9	1.302	0.398	0.129	-0.070	-0.259	-0.163	-0.039	-0.041	-0.038	-0.058	-0.058	-0.038	-0.030	-0.046	-0.065	-0.100	-0.100	-0.057	-0.057
32	125.0	1.305	0.401	0.130	-0.071	-0.261	-0.169	-0.042	-0.031	-0.028	-0.052	-0.058	-0.037	-0.040	-0.043	-0.059	-0.088	-0.115	-0.112	-0.069
33	134.9	1.303	0.401	0.131	-0.070	-0.262	-0.172	-0.032	-0.021	-0.023	-0.045	-0.056	-0.033	-0.040	-0.040	-0.054	-0.081	-0.109	-0.111	-0.074
34	144.9	1.304	0.402	0.131	-0.070	-0.263	-0.174	-0.040	-0.015	-0.018	-0.044	-0.053	-0.030	-0.040	-0.039	-0.049	-0.076	-0.104	-0.110	-0.080
35	154.9	1.303	0.402	0.131	-0.071	-0.264	-0.177	-0.037	-0.005	-0.013	-0.041	-0.051	-0.030	-0.040	-0.041	-0.039	-0.046	-0.071	-0.099	-0.088
36	164.8	1.304	0.403	0.132	-0.072	-0.266	-0.181	-0.037	0.002	-0.010	-0.039	-0.051	-0.029	-0.041	-0.038	-0.045	-0.069	-0.096	-0.109	-0.093
37	174.9	1.306	0.405	0.133	-0.071	-0.268	-0.181	-0.106	0.010	-0.007	-0.031	-0.049	-0.029	-0.040	-0.037	-0.043	-0.066	-0.093	-0.101	-0.098

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0275	0.0555	0.0833	0.1110	0.1389	0.1665	0.1943	0.2220	0.2498
CXA	0.0537	0.0008	-0.1831	-0.4831	-1.9019	-0.8849	1.9973	1.7637	1.5991
CYA	0.0048	-0.0226	-0.0385	-0.0759	-0.3506	-0.1883	0.3547	0.2466	0.1419
CAX	4.1134	1.5913	-0.6063	-0.8391	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.0275	0.1053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXA	0.0058	-0.0006	-0.0224	-0.0385	1.4030	1.6958	1.1977	-0.9491	-0.6931
CYA	0.0855	-0.0568	-0.0716	0.0415	0.2358	0.3678	0.2262	-0.3084	-0.2474
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.090	0.006	0.182	-0.098	CLN	-0.004			



DATE 6-MAR-78 PROJECT NO P41C-NOC  
ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PAST MACH REX10-6

TC-312 199 1.052 3.002 1414.2 702.3 544.2 1090.6 86.5

ALFA CONFIG SURVEY

2.00 12 204

ALFA 2.01

PHAD 2048.0

X 12.719

Y 0.000

Z -2.947

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.304	0.389	0.118	0.080	0.273	0.227	0.148	0.101	0.064	0.039	0.060	0.072	0.095	0.111	0.093	0.081	0.091	0.077	0.088
2	-174.9	1.306	0.391	0.120	0.079	0.272	0.228	0.147	0.101	0.063	0.038	0.060	0.072	0.097	0.115	0.093	0.080	0.087	0.059	0.082
3	-164.9	1.306	0.391	0.120	0.080	0.272	0.229	0.147	0.101	0.064	0.039	0.060	0.074	0.098	0.116	0.093	0.082	0.082	0.060	0.082
4	-154.9	1.304	0.391	0.120	0.079	0.272	0.230	0.146	0.101	0.067	0.041	0.061	0.078	0.101	0.118	0.090	0.085	0.096	0.061	0.087
5	-144.9	1.304	0.391	0.121	0.080	0.274	0.232	0.147	0.103	0.071	0.044	0.064	0.082	0.107	0.120	0.090	0.088	0.091	0.068	0.087
6	-135.1	1.305	0.394	0.121	0.080	0.274	0.233	0.146	0.103	0.074	0.046	0.064	0.087	0.111	0.121	0.087	0.090	0.093	0.068	0.087
7	-125.0	1.306	0.397	0.124	0.080	0.275	0.234	0.147	0.104	0.078	0.049	0.066	0.093	0.116	0.120	0.086	0.094	0.102	0.073	0.109
8	-115.1	1.308	0.397	0.124	0.080	0.277	0.234	0.147	0.104	0.078	0.049	0.066	0.093	0.116	0.120	0.086	0.094	0.102	0.073	0.109
9	-105.0	1.306	0.397	0.125	0.080	0.277	0.234	0.147	0.104	0.078	0.049	0.066	0.093	0.116	0.120	0.086	0.094	0.102	0.073	0.109
10	-95.0	1.304	0.400	0.125	0.080	0.277	0.234	0.147	0.104	0.078	0.049	0.066	0.093	0.116	0.120	0.086	0.094	0.102	0.073	0.109
11	-84.9	1.306	0.405	0.126	0.081	0.280	0.245	0.157	0.106	0.089	0.078	0.084	0.126	0.143	0.079	0.088	0.108	0.115	0.091	0.130
12	-74.9	1.306	0.409	0.130	0.080	0.281	0.249	0.155	0.106	0.089	0.078	0.089	0.131	0.143	0.067	0.087	0.110	0.116	0.101	0.132
13	-65.0	1.308	0.414	0.132	0.080	0.284	0.253	0.163	0.126	0.092	0.077	0.105	0.144	0.151	0.052	0.086	0.114	0.125	0.111	0.135
14	-54.9	1.306	0.417	0.134	0.080	0.284	0.253	0.162	0.134	0.092	0.078	0.110	0.148	0.158	0.049	0.089	0.117	0.128	0.111	0.137
15	-45.1	1.308	0.423	0.139	0.079	0.284	0.253	0.161	0.151	0.094	0.083	0.122	0.156	0.155	0.045	0.088	0.120	0.134	0.121	0.138
16	-35.1	1.306	0.424	0.140	0.079	0.285	0.261	0.171	0.163	0.097	0.088	0.133	0.164	0.149	0.043	0.090	0.123	0.139	0.129	0.139
17	-25.1	1.307	0.428	0.144	0.079	0.287	0.266	0.171	0.160	0.099	0.092	0.141	0.168	0.136	0.041	0.090	0.124	0.141	0.131	0.142
18	-15.1	1.307	0.430	0.149	0.077	0.285	0.258	0.177	0.143	0.099	0.094	0.140	0.170	0.113	0.038	0.087	0.125	0.144	0.139	0.143
19	-5.0	1.305	0.431	0.150	0.076	0.285	0.255	0.177	0.134	0.100	0.096	0.132	0.171	0.103	0.037	0.089	0.126	0.147	0.145	0.145
20	5.0	1.305	0.431	0.152	0.075	0.286	0.255	0.166	0.126	0.092	0.098	0.134	0.171	0.091	0.036	0.089	0.126	0.147	0.145	0.146
21	15.0	1.307	0.430	0.150	0.075	0.286	0.255	0.165	0.125	0.098	0.098	0.134	0.170	0.090	0.036	0.088	0.126	0.146	0.144	0.144
22	25.0	1.306	0.428	0.148	0.075	0.285	0.254	0.164	0.135	0.097	0.097	0.139	0.168	0.104	0.036	0.087	0.124	0.140	0.133	0.139
23	35.0	1.304	0.424	0.143	0.077	0.286	0.260	0.174	0.151	0.096	0.096	0.147	0.165	0.127	0.037	0.087	0.123	0.138	0.130	0.139
24	45.0	1.306	0.419	0.136	0.080	0.286	0.260	0.172	0.153	0.093	0.092	0.148	0.160	0.154	0.039	0.087	0.120	0.137	0.133	0.141
25	54.9	1.303	0.415	0.134	0.081	0.284	0.264	0.172	0.148	0.092	0.089	0.142	0.157	0.158	0.041	0.086	0.118	0.135	0.131	0.139
26	64.9	1.307	0.413	0.133	0.079	0.281	0.261	0.175	0.148	0.087	0.081	0.140	0.150	0.151	0.040	0.085	0.109	0.131	0.130	0.131
27	74.9	1.307	0.411	0.131	0.080	0.281	0.259	0.174	0.140	0.085	0.079	0.140	0.146	0.146	0.045	0.081	0.108	0.115	0.111	0.131
28	84.9	1.304	0.404	0.126	0.081	0.280	0.250	0.173	0.135	0.083	0.079	0.139	0.144	0.144	0.056	0.080	0.106	0.118	0.111	0.131
29	95.0	1.305	0.401	0.124	0.081	0.278	0.248	0.172	0.127	0.079	0.073	0.138	0.142	0.133	0.071	0.079	0.101	0.107	0.101	0.125
30	105.0	1.305	0.399	0.123	0.081	0.278	0.248	0.171	0.117	0.077	0.069	0.137	0.140	0.133	0.080	0.078	0.099	0.105	0.100	0.120
31	115.0	1.307	0.397	0.123	0.081	0.277	0.247	0.171	0.111	0.075	0.066	0.136	0.140	0.125	0.084	0.080	0.097	0.105	0.094	0.112
32	125.0	1.305	0.394	0.120	0.082	0.276	0.238	0.170	0.100	0.073	0.063	0.135	0.139	0.120	0.084	0.081	0.093	0.095	0.087	0.106
33	134.9	1.304	0.391	0.118	0.083	0.276	0.238	0.162	0.100	0.070	0.061	0.134	0.138	0.116	0.081	0.083	0.090	0.093	0.087	0.099
34	144.9	1.305	0.390	0.118	0.082	0.275	0.238	0.161	0.100	0.067	0.059	0.133	0.137	0.115	0.085	0.085	0.085	0.085	0.081	0.096
35	154.9	1.305	0.390	0.118	0.082	0.275	0.238	0.161	0.100	0.064	0.058	0.132	0.136	0.115	0.084	0.084	0.084	0.084	0.083	0.092
36	164.9	1.307	0.390	0.118	0.082	0.276	0.233	0.162	0.103	0.064	0.059	0.131	0.135	0.115	0.084	0.084	0.084	0.084	0.083	0.092
37	174.9	1.304	0.389	0.119	0.081	0.274	0.230	0.160	0.102	0.062	0.057	0.130	0.134	0.115	0.084	0.084	0.084	0.084	0.083	0.092

OPRICE	2	3	4	5	6	7	8	9	10
XS FT	0.278	0.055	0.083	0.110	0.138	0.165	0.193	0.220	0.248
CNX	-0.273	-0.326	-0.0518	0.2197	0.5375	0.7881	0.7160	0.5665	0.6059
CYX	0.0034	0.0071	0.0110	0.0152	0.1309	0.2948	0.0715	-0.0834	0.0227
CAX	4.1992	1.5842	-0.7243	-0.3255	0.0000	0.0000	0.0000	0.0000	0.0000

OPRICE	11	12	13	14	15	16	17	18	19
XS FT	0.273	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	1.4395	1.6253	0.4282	-1.4998	-0.0163	0.7345	1.0510	1.3370	0.9420
CYX	0.1413	0.1696	0.0445	-0.0003	-0.1077	-0.0025	-0.0422	0.2517	0.0476
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM	CY	CLM	CLW	CLX
0.244	0.020	-0.382	0.011	0.011

DATE 6-MAR-78 PROJECT NO P41C-N0C

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 1413.0

TC-532 175 1.050 2.998

PT 703.5

Q 542.9

V1 1088.9

TT 86.6

DATE 2-17-78

AEC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG 12

SURVEY 201

ALFAS 4.99

PBAR 2048.1

X 11.218

Y 0.000

Z -2.397

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9	-174.8	1.306	0.457	0.189	-0.015	-0.202	-0.086	0.029	0.067	0.052	0.088	0.088	0.079	0.068	0.040	0.020	0.010	0.041	0.065	0.039
10	-163.9	1.304	0.457	0.190	-0.014	-0.209	-0.092	0.030	0.065	0.050	0.087	0.087	0.089	0.078	0.045	0.021	0.009	0.038	0.065	0.039
11	-152.0	1.302	0.453	0.187	-0.016	-0.212	-0.096	0.030	0.066	0.053	0.088	0.088	0.088	0.078	0.046	0.021	0.008	0.038	0.064	0.037
12	-148.9	1.303	0.450	0.183	-0.019	-0.212	-0.100	0.040	0.065	0.055	0.089	0.089	0.089	0.079	0.047	0.020	0.008	0.039	0.062	0.037
13	-135.1	1.307	0.447	0.179	-0.021	-0.212	-0.101	0.039	0.063	0.056	0.090	0.090	0.089	0.079	0.046	0.017	0.004	0.038	0.061	0.036
14	-125.0	1.306	0.439	0.173	-0.025	-0.212	-0.103	0.047	0.057	0.055	0.090	0.090	0.088	0.077	0.044	0.011	0.001	0.040	0.057	0.029
15	-115.1	1.304	0.433	0.169	-0.027	-0.207	-0.102	0.047	0.051	0.057	0.090	0.090	0.089	0.077	0.042	0.007	0.001	0.042	0.056	0.027
16	-105.0	1.303	0.428	0.164	-0.028	-0.200	-0.099	0.047	0.046	0.058	0.091	0.091	0.089	0.077	0.042	0.002	0.003	0.045	0.055	0.023
17	-95.0	1.303	0.420	0.159	-0.031	-0.184	-0.091	0.036	0.036	0.057	0.093	0.093	0.090	0.077	0.040	0.007	0.005	0.051	0.054	0.020
18	-85.0	1.302	0.415	0.156	-0.032	-0.168	-0.075	0.023	0.023	0.053	0.093	0.093	0.093	0.074	0.055	0.016	0.007	0.056	0.054	0.016
19	-74.9	1.303	0.412	0.156	-0.029	-0.147	-0.059	0.013	0.015	0.050	0.096	0.096	0.096	0.075	0.054	0.010	0.004	0.063	0.055	0.015
20	-65.0	1.302	0.408	0.154	-0.029	-0.122	-0.040	0.003	0.001	0.042	0.096	0.096	0.096	0.075	0.050	0.002	0.003	0.069	0.056	0.013
21	-55.9	1.303	0.408	0.155	-0.026	-0.095	-0.013	-0.025	-0.017	0.033	0.098	0.098	0.097	0.072	0.045	0.015	0.007	0.079	0.059	0.012
22	-45.0	1.306	0.408	0.157	-0.023	-0.070	0.018	-0.049	-0.036	0.024	0.100	0.085	0.085	0.070	0.040	0.010	0.006	0.089	0.062	0.011
23	-35.1	1.305	0.406	0.158	-0.021	-0.047	0.029	-0.073	-0.051	0.014	0.100	0.081	0.081	0.067	0.035	0.045	0.071	0.098	0.064	0.011
24	-25.0	1.306	0.407	0.162	-0.017	-0.021	0.024	-0.094	-0.063	0.007	0.098	0.077	0.068	0.031	0.057	0.080	0.032	0.111	0.069	0.012
25	-15.1	1.303	0.405	0.163	-0.015	0.001	0.014	-0.114	-0.070	0.004	0.087	0.065	0.066	0.026	0.071	0.088	0.039	0.123	0.073	0.012
26	-5.0	1.306	0.407	0.164	-0.013	0.011	0.010	-0.113	-0.071	0.007	0.080	0.058	0.066	0.025	0.076	0.091	0.032	0.129	0.074	0.014
27	5.0	1.304	0.406	0.164	-0.013	0.020	0.001	-0.126	-0.071	0.009	0.070	0.050	0.063	0.022	0.082	0.097	0.033	0.134	0.075	0.013
28	15.0	1.301	0.404	0.162	-0.014	0.015	0.002	-0.125	-0.067	0.007	0.071	0.051	0.063	0.023	0.083	0.095	0.034	0.133	0.075	0.013
29	24.9	1.300	0.403	0.161	-0.016	0.003	0.003	-0.124	-0.061	0.007	0.079	0.052	0.066	0.027	0.079	0.088	0.033	0.128	0.074	0.013
30	35.0	1.302	0.405	0.160	-0.018	0.020	0.012	-0.101	-0.054	0.017	0.083	0.075	0.067	0.031	0.070	0.082	0.026	0.119	0.073	0.015
31	45.0	1.303	0.405	0.158	-0.021	0.044	0.024	-0.087	-0.043	0.039	0.083	0.084	0.084	0.069	0.036	0.059	0.074	0.109	0.071	0.016
32	54.9	1.303	0.407	0.157	-0.023	0.067	0.026	-0.064	-0.030	0.039	0.084	0.088	0.088	0.071	0.041	0.045	0.064	0.100	0.069	0.017
33	64.9	1.301	0.408	0.155	-0.026	0.098	0.015	-0.050	-0.011	0.049	0.084	0.091	0.073	0.047	0.038	0.052	0.005	0.091	0.066	0.018
34	74.9	1.300	0.410	0.155	-0.028	0.121	0.001	-0.029	-0.001	0.053	0.083	0.090	0.073	0.049	0.038	0.045	0.001	0.083	0.066	0.019
35	84.9	1.303	0.416	0.156	-0.029	0.150	0.018	0.009	0.009	0.052	0.082	0.089	0.072	0.052	0.036	0.038	0.008	0.075	0.062	0.020
36	95.0	1.303	0.421	0.159	-0.029	0.167	0.019	0.004	0.017	0.050	0.083	0.088	0.072	0.053	0.033	0.031	0.011	0.071	0.062	0.022
37	105.0	1.303	0.426	0.162	-0.028	0.183	0.032	0.007	0.026	0.053	0.084	0.087	0.073	0.056	0.011	0.022	0.010	0.065	0.062	0.024
38	115.9	1.306	0.432	0.165	-0.027	0.192	0.044	0.007	0.033	0.050	0.084	0.087	0.072	0.057	0.017	0.017	0.012	0.060	0.062	0.026
39	125.0	1.303	0.437	0.168	-0.027	0.200	0.062	0.016	0.040	0.048	0.080	0.086	0.072	0.058	0.022	0.012	0.012	0.052	0.061	0.027
40	134.9	1.302	0.442	0.173	-0.025	0.205	0.076	0.026	0.047	0.052	0.082	0.082	0.074	0.061	0.029	0.002	0.007	0.050	0.062	0.031
41	144.9	1.304	0.449	0.178	-0.022	0.209	0.087	0.026	0.053	0.053	0.084	0.088	0.075	0.063	0.035	0.006	0.003	0.049	0.064	0.034
42	154.9	1.306	0.453	0.182	-0.021	0.212	0.093	0.028	0.057	0.053	0.085	0.088	0.077	0.065	0.039	0.011	0.001	0.045	0.064	0.036
43	164.9	1.304	0.456	0.185	-0.019	0.213	0.093	0.033	0.059	0.048	0.084	0.087	0.076	0.064	0.040	0.013	0.002	0.039	0.064	0.037
44	174.9	1.304	0.456	0.189	-0.016	0.213	0.092	0.034	0.062	0.053	0.086	0.089	0.078	0.068	0.043	0.020	0.007	0.043	0.065	0.039

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CHX	0.2447	0.2887	-0.0278	-3.4987	-1.0366	2.3697	2.1264	0.6857	0.0887
CYX	0.0109	0.0212	-0.0085	-0.3448	-0.7618	0.6600	0.2572	0.0144	0.2170
CAX	4.3876	2.0378	-0.3030	-0.4378	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CHX	0.3168	0.1806	0.0380	1.8927	1.7430	-0.3710	-1.3534	-0.1336	0.4216
CYX	0.0341	0.0506	0.0922	0.4208	0.3663	0.0266	-0.3472	-0.1272	-0.0334
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CH	0.115	0.015	0.224	0.212	0.212	0.212	0.212	0.212	0.212
CLM	0.015	0.015	0.224	0.212	0.212	0.212	0.212	0.212	0.212
CLM	0.015	0.015	0.224	0.212	0.212	0.212	0.212	0.212	0.212
CLM	0.015	0.015	0.224	0.212	0.212	0.212	0.212	0.212	0.212



DATE 6-MAR-78 PROJECT NO P41C-MOC

AND, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEXIO-6 PT

TC-532 176 1.051 3.002 1415.3 703.8 544.2 1089.8 86.7

ALFA CONFIG SURVEY 202

ALFA 5.00

ALFA 4.99

PRAN 2048.2

Q 11.218

X 0.000

Y -2.572

Z

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSOMIC 47

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

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TRANSOMIC 47





DATE 6-MAR-78 PROJECT NO P41C-NOC

ASD, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REXIO-6 PT  
TC-532 178 1.052 3.001 1414.4 702.6 544.2 1090.6

ALFA CONFIG SURVEY 204  
5.00 12

ALFA 5.00 12

DATE 2-17-78

AEC PROPULSION WIND TUNNEL

TRANSONIC 47

DATE 2-17-78

AEC PROPULSION WIND TUNNEL

TRANSONIC 47

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AEC PROPULSION WIND TUNNEL

TRANSONIC 47

DATE 6-MAR-78 PROJECT NO P41C-WOC

ABO, INC.  
AEC DIVISION

A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL

ARMOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH NEX10-6 PT P

TC-532 33 0.926 3.002 1449.2 831.8 499.8 976.0

ALFA CONFIG SURVEY 201

ALFA 0.00 13

ALFA 0.02

PRAR 2042.2

VI 11.967

TT 81.5

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

ORIFICE

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DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT P 810.5 498.6 975.4 81.1

TC-512 34 0.926 2.998 1445.4 810.5 498.6 975.4 81.1 DATE 2-16-78 AEDC PROPULSION WIND TUNNEL TRANSONIC 4T

ALPHA CONFIG SURVEY 302 ALPHA 0.03 PBAR 2042.2 X 11.967 Y 3.500 Z -1.575

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	-174.9	1.232	0.247	-0.014	-0.221	-0.311	-0.216	-0.015	-0.074	-0.119	-0.160	-0.203	-0.239	-0.254	-0.227	-0.223	-0.084	-0.019	0.004	-0.001
2	-164.9	1.233	0.278	-0.014	-0.222	-0.318	-0.222	-0.015	-0.074	-0.118	-0.159	-0.200	-0.231	-0.254	-0.228	-0.222	-0.085	-0.021	0.003	-0.003
3	-153.0	1.230	0.273	-0.012	-0.220	-0.322	-0.218	-0.013	-0.077	-0.121	-0.162	-0.204	-0.231	-0.259	-0.228	-0.226	-0.085	-0.022	0.002	-0.004
4	-144.9	1.229	0.277	-0.009	-0.220	-0.324	-0.210	-0.014	-0.079	-0.121	-0.167	-0.208	-0.235	-0.263	-0.228	-0.229	-0.081	-0.021	0.002	-0.004
5	-135.1	1.230	0.285	-0.005	-0.217	-0.327	-0.235	-0.015	-0.083	-0.129	-0.174	-0.216	-0.254	-0.272	-0.233	-0.239	-0.081	-0.020	0.003	-0.003
6	-125.0	1.231	0.291	0.001	-0.214	-0.327	-0.235	-0.015	-0.088	-0.135	-0.182	-0.225	-0.262	-0.278	-0.238	-0.247	-0.079	-0.018	0.004	-0.003
7	-115.1	1.232	0.299	0.007	-0.209	-0.329	-0.234	-0.014	-0.093	-0.143	-0.191	-0.235	-0.271	-0.283	-0.239	-0.260	-0.079	-0.016	0.005	-0.001
8	-105.0	1.233	0.308	0.015	-0.203	-0.330	-0.229	-0.021	-0.099	-0.153	-0.203	-0.248	-0.283	-0.287	-0.245	-0.273	-0.079	-0.012	0.007	0.001
9	-95.0	1.230	0.314	0.022	-0.198	-0.332	-0.217	-0.024	-0.105	-0.164	-0.216	-0.261	-0.295	-0.285	-0.250	-0.294	-0.075	-0.012	0.009	0.003
10	-85.0	1.228	0.324	0.032	-0.188	-0.331	-0.192	-0.033	-0.114	-0.179	-0.233	-0.280	-0.308	-0.277	-0.256	-0.317	-0.067	-0.007	0.011	0.006
11	-74.8	1.233	0.332	0.042	-0.180	-0.331	-0.186	-0.041	-0.120	-0.193	-0.248	-0.298	-0.310	-0.276	-0.264	-0.343	-0.065	-0.003	0.015	0.010
12	-65.0	1.231	0.338	0.051	-0.172	-0.325	-0.099	-0.040	-0.127	-0.203	-0.262	-0.313	-0.322	-0.273	-0.276	-0.365	-0.059	0.001	0.019	0.013
13	-54.9	1.227	0.342	0.058	-0.163	-0.320	-0.041	-0.040	-0.133	-0.216	-0.276	-0.327	-0.337	-0.280	-0.286	-0.390	-0.053	0.004	0.032	0.016
14	-45.0	1.230	0.346	0.066	-0.156	-0.319	-0.012	-0.040	-0.140	-0.228	-0.289	-0.343	-0.350	-0.266	-0.266	-0.414	-0.051	0.007	0.025	0.018
15	-35.1	1.231	0.347	0.071	-0.150	-0.318	-0.001	-0.041	-0.145	-0.238	-0.300	-0.359	-0.367	-0.263	-0.263	-0.432	-0.052	0.007	0.025	0.019
16	-25.1	1.234	0.348	0.077	-0.143	-0.316	0.010	-0.040	-0.150	-0.243	-0.309	-0.379	-0.398	-0.260	-0.260	-0.449	-0.055	0.008	0.026	0.020
17	-15.1	1.233	0.346	0.077	-0.138	-0.311	0.021	-0.038	-0.151	-0.250	-0.312	-0.393	-0.391	-0.258	-0.258	-0.457	-0.054	0.008	0.028	0.021
18	-5.0	1.232	0.343	0.074	-0.133	-0.303	0.032	-0.038	-0.152	-0.253	-0.313	-0.401	-0.381	-0.254	-0.254	-0.470	-0.055	0.010	0.029	0.023
19	5.0	1.230	0.337	0.069	-0.140	-0.292	0.038	-0.033	-0.153	-0.251	-0.312	-0.402	-0.382	-0.252	-0.252	-0.480	-0.056	0.010	0.028	0.022
20	15.0	1.231	0.332	0.063	-0.142	-0.276	0.048	-0.036	-0.149	-0.248	-0.305	-0.392	-0.382	-0.246	-0.246	-0.483	-0.056	0.010	0.029	0.022
21	25.0	1.233	0.325	0.057	-0.146	-0.262	0.057	-0.035	-0.142	-0.236	-0.294	-0.372	-0.370	-0.239	-0.239	-0.477	-0.056	0.008	0.029	0.023
22	35.0	1.235	0.318	0.048	-0.152	-0.259	0.055	-0.035	-0.135	-0.223	-0.283	-0.350	-0.350	-0.233	-0.233	-0.462	-0.056	0.006	0.028	0.022
23	45.0	1.235	0.309	0.038	-0.161	-0.263	0.052	-0.035	-0.127	-0.213	-0.269	-0.326	-0.332	-0.229	-0.229	-0.454	-0.052	0.003	0.025	0.020
24	54.9	1.232	0.300	0.028	-0.168	-0.269	0.046	-0.033	-0.118	-0.197	-0.252	-0.305	-0.303	-0.224	-0.224	-0.449	-0.055	0.002	0.023	0.016
25	64.9	1.232	0.292	0.020	-0.176	-0.277	0.032	-0.031	-0.111	-0.183	-0.236	-0.287	-0.281	-0.224	-0.224	-0.442	-0.056	0.002	0.021	0.016
26	74.9	1.239	0.286	0.014	-0.183	-0.282	0.017	-0.031	-0.104	-0.173	-0.222	-0.271	-0.265	-0.225	-0.225	-0.444	-0.056	0.004	0.019	0.014
27	84.9	1.232	0.279	0.004	-0.193	-0.286	0.014	-0.033	-0.096	-0.158	-0.208	-0.254	-0.251	-0.232	-0.232	-0.445	-0.056	0.008	0.016	0.011
28	94.9	1.226	0.272	-0.003	-0.200	-0.287	0.013	-0.023	-0.093	-0.153	-0.199	-0.245	-0.243	-0.237	-0.237	-0.446	-0.056	0.011	0.006	0.006
29	105.0	1.230	0.270	-0.004	-0.201	-0.285	0.015	-0.021	-0.085	-0.140	-0.187	-0.231	-0.230	-0.235	-0.235	-0.447	-0.056	0.013	0.012	0.007
30	115.0	1.231	0.267	-0.008	-0.206	-0.287	0.017	-0.018	-0.081	-0.136	-0.178	-0.222	-0.221	-0.240	-0.240	-0.448	-0.056	0.015	0.011	0.006
31	125.0	1.231	0.261	-0.014	-0.214	-0.293	0.013	-0.018	-0.079	-0.128	-0.171	-0.214	-0.214	-0.241	-0.241	-0.449	-0.056	0.018	0.007	0.002
32	134.9	1.229	0.260	-0.016	-0.217	-0.293	0.013	-0.018	-0.077	-0.123	-0.165	-0.202	-0.202	-0.240	-0.240	-0.450	-0.056	0.019	0.008	0.001
33	144.9	1.228	0.258	-0.019	-0.220	-0.293	0.011	-0.015	-0.075	-0.119	-0.161	-0.202	-0.202	-0.238	-0.238	-0.451	-0.056	0.021	0.005	0.001
34	154.9	1.230	0.260	-0.020	-0.221	-0.292	0.011	-0.013	-0.072	-0.113	-0.156	-0.197	-0.197	-0.233	-0.233	-0.452	-0.056	0.020	0.005	0.001
35	164.9	1.230	0.260	-0.021	-0.224	-0.295	0.011	-0.013	-0.071	-0.113	-0.154	-0.195	-0.195	-0.230	-0.230	-0.453	-0.056	0.020	0.003	0.001
36	174.9	1.230	0.261	-0.021	-0.226	-0.303	0.010	-0.013	-0.072	-0.115	-0.155	-0.196	-0.196	-0.233	-0.233	-0.454	-0.056	0.022	0.002	0.003

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX FT	-0.5074	-1.0088	-1.2094	-0.2753	-4.5498	-0.4769	1.2310	2.1584	2.4945
CX	0.2823	0.3049	0.3126	-0.8748	-0.9166	-0.0702	-0.2791	-0.3396	-0.3396
CAX	3.0964	0.2551	-1.7026	-1.0015	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX FT	3.0503	2.4024	-0.0603	1.8231	4.2279	-0.6342	-0.5211	-0.4335	-0.4396
CX	-0.3205	-0.5661	-0.7933	-0.2219	0.0803	1.0196	0.0166	-0.0633	-0.0747
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.215	-0.081	0.078	-0.599	-0.084	-0.084	-0.084	-0.084	-0.084

DATE 6-MAR-78 PROJECT NO P41C-NOC

APO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 35 0.936

PT 1443.4

P 829.3

Q 498.0

VI 974.5

TT 80.1

DATE 2-16-78

AEDC PROPELSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 201

ALFA 13

PHAR 2042.2

X 11.967

Y 3.500

Z -1.950

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.229	0.244	-0.017	-0.224	-0.310	-0.231	-0.009	-0.069	-0.106	-0.142	-0.179	-0.214	-0.236	-0.220	-0.173	-0.081	-0.028	-0.004	-0.012
3	-165.0	1.232	0.267	-0.016	-0.224	-0.317	-0.231	-0.009	-0.068	-0.104	-0.139	-0.176	-0.210	-0.236	-0.219	-0.168	-0.081	-0.029	-0.008	-0.011
4	-155.0	1.231	0.271	-0.013	-0.224	-0.343	-0.243	-0.009	-0.070	-0.105	-0.140	-0.178	-0.213	-0.237	-0.221	-0.175	-0.087	-0.029	-0.008	-0.012
5	-144.9	1.230	0.276	-0.011	-0.222	-0.345	-0.243	-0.008	-0.072	-0.108	-0.144	-0.182	-0.216	-0.241	-0.222	-0.180	-0.087	-0.029	-0.008	-0.012
6	-135.1	1.229	0.280	-0.008	-0.220	-0.347	-0.248	-0.008	-0.075	-0.112	-0.150	-0.188	-0.225	-0.245	-0.223	-0.181	-0.084	-0.028	-0.008	-0.013
7	-125.0	1.229	0.285	-0.003	-0.217	-0.348	-0.244	-0.007	-0.079	-0.117	-0.157	-0.195	-0.233	-0.254	-0.223	-0.187	-0.083	-0.026	-0.008	-0.012
8	-115.1	1.229	0.292	0.002	-0.213	-0.349	-0.247	-0.018	-0.082	-0.123	-0.164	-0.203	-0.242	-0.263	-0.223	-0.186	-0.083	-0.025	-0.008	-0.011
9	-105.0	1.231	0.300	0.008	-0.208	-0.352	-0.243	-0.018	-0.087	-0.130	-0.172	-0.213	-0.253	-0.271	-0.225	-0.187	-0.083	-0.023	-0.008	-0.009
10	-95.0	1.229	0.306	0.015	-0.202	-0.357	-0.229	-0.029	-0.093	-0.139	-0.182	-0.223	-0.263	-0.284	-0.229	-0.187	-0.083	-0.022	-0.008	-0.009
11	-85.0	1.231	0.313	0.022	-0.195	-0.357	-0.207	-0.077	-0.096	-0.145	-0.192	-0.236	-0.275	-0.299	-0.230	-0.187	-0.081	-0.017	-0.003	-0.005
12	-74.8	1.231	0.321	0.031	-0.187	-0.355	-0.172	-0.036	-0.100	-0.154	-0.205	-0.250	-0.288	-0.292	-0.233	-0.187	-0.081	-0.013	-0.008	-0.002
13	-65.0	1.231	0.326	0.039	-0.180	-0.353	-0.133	-0.034	-0.104	-0.163	-0.216	-0.261	-0.294	-0.286	-0.237	-0.189	-0.081	-0.009	-0.009	-0.001
14	-54.9	1.234	0.332	0.046	-0.173	-0.351	-0.094	-0.034	-0.105	-0.169	-0.224	-0.269	-0.290	-0.273	-0.239	-0.185	-0.082	-0.005	-0.012	-0.004
15	-45.0	1.231	0.333	0.051	-0.167	-0.349	-0.073	-0.032	-0.107	-0.175	-0.232	-0.277	-0.282	-0.261	-0.241	-0.184	-0.073	-0.002	-0.014	-0.006
16	-35.1	1.228	0.332	0.053	-0.165	-0.341	-0.063	-0.035	-0.112	-0.182	-0.240	-0.288	-0.279	-0.248	-0.252	-0.187	-0.072	-0.000	-0.016	-0.007
17	-25.1	1.228	0.333	0.059	-0.159	-0.345	-0.052	-0.033	-0.115	-0.187	-0.246	-0.294	-0.279	-0.238	-0.250	-0.187	-0.072	-0.000	-0.016	-0.007
18	-15.1	1.231	0.334	0.061	-0.153	-0.341	-0.047	-0.032	-0.110	-0.189	-0.250	-0.308	-0.279	-0.238	-0.252	-0.187	-0.072	-0.000	-0.016	-0.009
19	-5.0	1.232	0.331	0.059	-0.153	-0.336	-0.035	-0.032	-0.110	-0.190	-0.257	-0.313	-0.281	-0.233	-0.254	-0.187	-0.073	-0.005	-0.019	-0.010
20	5.0	1.232	0.327	0.052	-0.156	-0.330	-0.032	-0.032	-0.110	-0.190	-0.251	-0.310	-0.280	-0.229	-0.253	-0.187	-0.078	-0.006	-0.020	-0.010
21	15.0	1.230	0.322	0.049	-0.158	-0.322	-0.031	-0.031	-0.109	-0.188	-0.247	-0.310	-0.276	-0.225	-0.250	-0.185	-0.079	-0.005	-0.020	-0.010
22	24.9	1.230	0.316	0.042	-0.163	-0.314	-0.035	-0.032	-0.107	-0.183	-0.241	-0.301	-0.268	-0.224	-0.245	-0.185	-0.087	-0.003	-0.019	-0.009
23	35.0	1.234	0.311	0.036	-0.167	-0.309	-0.041	-0.031	-0.104	-0.176	-0.232	-0.287	-0.259	-0.225	-0.239	-0.180	-0.103	-0.002	-0.020	-0.010
24	45.0	1.231	0.301	0.025	-0.176	-0.309	-0.061	-0.031	-0.098	-0.165	-0.218	-0.265	-0.254	-0.231	-0.232	-0.184	-0.131	-0.003	-0.016	-0.006
25	54.9	1.233	0.295	0.020	-0.182	-0.312	-0.070	-0.030	-0.095	-0.157	-0.208	-0.253	-0.258	-0.239	-0.228	-0.180	-0.148	-0.006	-0.015	-0.006
26	64.9	1.233	0.290	0.013	-0.188	-0.315	-0.090	-0.030	-0.091	-0.149	-0.198	-0.243	-0.263	-0.247	-0.224	-0.180	-0.155	-0.009	-0.012	-0.004
27	74.9	1.231	0.284	0.007	-0.193	-0.315	-0.125	-0.027	-0.085	-0.139	-0.186	-0.230	-0.261	-0.251	-0.218	-0.171	-0.169	-0.012	-0.011	-0.003
28	85.0	1.235	0.280	0.002	-0.199	-0.313	-0.150	-0.026	-0.081	-0.132	-0.176	-0.220	-0.255	-0.252	-0.214	-0.173	-0.173	-0.016	-0.009	-0.001
29	95.0	1.232	0.273	-0.004	-0.205	-0.314	-0.182	-0.026	-0.079	-0.127	-0.169	-0.212	-0.248	-0.250	-0.212	-0.173	-0.173	-0.020	-0.008	-0.002
30	105.0	1.230	0.269	-0.009	-0.210	-0.314	-0.200	-0.017	-0.076	-0.121	-0.162	-0.204	-0.240	-0.248	-0.210	-0.173	-0.173	-0.024	-0.008	-0.004
31	115.0	1.229	0.266	-0.012	-0.213	-0.314	-0.213	-0.016	-0.073	-0.115	-0.155	-0.195	-0.232	-0.235	-0.207	-0.173	-0.173	-0.025	-0.008	-0.005
32	125.0	1.229	0.263	-0.015	-0.217	-0.313	-0.224	-0.015	-0.070	-0.111	-0.148	-0.188	-0.224	-0.233	-0.205	-0.173	-0.173	-0.026	-0.008	-0.006
33	134.9	1.231	0.261	-0.018	-0.220	-0.311	-0.233	-0.003	-0.066	-0.104	-0.141	-0.178	-0.215	-0.226	-0.204	-0.173	-0.173	-0.026	-0.008	-0.007
34	144.9	1.230	0.259	-0.020	-0.224	-0.311	-0.243	-0.003	-0.066	-0.102	-0.138	-0.175	-0.212	-0.223	-0.206	-0.173	-0.173	-0.026	-0.008	-0.010
35	154.9	1.232	0.260	-0.021	-0.225	-0.311	-0.245	-0.002	-0.066	-0.099	-0.135	-0.171	-0.206	-0.223	-0.207	-0.173	-0.173	-0.026	-0.008	-0.010
36	164.9	1.230	0.260	-0.022	-0.227	-0.316	-0.248	-0.003	-0.066	-0.099	-0.134	-0.172	-0.206	-0.228	-0.210	-0.173	-0.173	-0.026	-0.008	-0.011
37	174.9	1.230	0.260	-0.022	-0.228	-0.334	-0.248	-0.005	-0.066	-0.102	-0.136	-0.173	-0.208	-0.228	-0.210	-0.173	-0.173	-0.026	-0.008	-0.013

ORIFICE

X5 FT

CNV

CNV

CAX

0.0278

-0.4404

0.2256

3.0303

0.0555

-0.8401

0.2554

0.1624

0.0833

-1.0110

-0.0712

-1.7776

0.1110

-3.6123

-0.7440

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0.1388

-0.5556

0.0000

0.1665

-0.2131

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0.1943

-0.7244

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DATE 6-MAR-78 PROJECT NO PAIC-MOC

ARO, INC.

AEDC DIVISION

A SYNERGIC CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REAR-6 PT

TC-332 35 0.928 3.007 1443.9 828.1 499.0 975.7 79.9

DATE 2-10-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 204  
0.00 13

PNT	DPMI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.228	0.244	-0.041	-0.251	-0.431	-0.365	-0.277	-0.217	-0.218	-0.250	-0.250	-0.099	0.014	0.022	0.037	0.036	0.037	0.031	0.002
3	-164.9	1.228	0.246	-0.041	-0.251	-0.434	-0.371	-0.285	-0.243	-0.243	-0.253	-0.253	-0.084	0.022	0.033	0.042	0.042	0.039	0.033	0.005
4	-155.0	1.228	0.249	-0.040	-0.251	-0.439	-0.382	-0.296	-0.256	-0.256	-0.261	-0.270	-0.111	0.023	0.034	0.042	0.041	0.038	0.032	0.003
5	-144.9	1.230	0.255	-0.038	-0.252	-0.459	-0.388	-0.295	-0.260	-0.261	-0.265	-0.276	-0.097	0.025	0.036	0.043	0.042	0.039	0.033	0.004
6	-135.1	1.229	0.260	-0.031	-0.251	-0.461	-0.391	-0.305	-0.267	-0.269	-0.269	-0.287	-0.088	0.025	0.036	0.043	0.043	0.040	0.033	0.004
7	-125.1	1.229	0.269	-0.026	-0.248	-0.460	-0.398	-0.313	-0.278	-0.277	-0.274	-0.308	-0.068	0.030	0.040	0.047	0.047	0.043	0.036	0.007
8	-115.1	1.228	0.274	-0.021	-0.243	-0.461	-0.404	-0.325	-0.289	-0.287	-0.279	-0.325	-0.056	0.031	0.041	0.048	0.048	0.044	0.036	0.007
9	-105.0	1.228	0.282	-0.016	-0.240	-0.462	-0.410	-0.337	-0.302	-0.297	-0.287	-0.325	-0.056	0.031	0.042	0.049	0.049	0.045	0.037	0.007
10	-95.0	1.229	0.293	-0.008	-0.239	-0.464	-0.418	-0.350	-0.317	-0.310	-0.296	-0.340	-0.050	0.037	0.045	0.052	0.052	0.048	0.039	0.009
11	-85.0	1.230	0.303	0.001	-0.235	-0.465	-0.426	-0.363	-0.332	-0.319	-0.305	-0.357	-0.039	0.039	0.047	0.055	0.054	0.050	0.041	0.010
12	-74.9	1.230	0.315	0.011	-0.229	-0.465	-0.431	-0.374	-0.342	-0.329	-0.314	-0.373	-0.029	0.043	0.051	0.059	0.059	0.053	0.041	0.012
13	-65.0	1.231	0.326	0.020	-0.224	-0.465	-0.441	-0.385	-0.348	-0.328	-0.325	-0.389	-0.025	0.045	0.055	0.063	0.062	0.056	0.046	0.013
14	-54.9	1.229	0.333	0.026	-0.219	-0.468	-0.450	-0.394	-0.356	-0.331	-0.337	-0.408	-0.028	0.047	0.057	0.064	0.063	0.058	0.046	0.012
15	-45.0	1.230	0.344	0.038	-0.213	-0.468	-0.459	-0.416	-0.377	-0.357	-0.349	-0.421	-0.024	0.050	0.060	0.068	0.067	0.060	0.048	0.014
16	-35.1	1.230	0.352	0.047	-0.208	-0.469	-0.468	-0.427	-0.390	-0.361	-0.356	-0.441	-0.026	0.049	0.062	0.071	0.069	0.062	0.049	0.014
17	-25.1	1.231	0.359	0.058	-0.201	-0.467	-0.468	-0.424	-0.391	-0.361	-0.359	-0.448	-0.023	0.051	0.066	0.074	0.072	0.064	0.052	0.017
18	-15.1	1.231	0.362	0.067	-0.196	-0.468	-0.473	-0.437	-0.400	-0.370	-0.366	-0.461	-0.033	0.049	0.067	0.076	0.075	0.066	0.050	0.015
19	-5.0	1.236	0.365	0.075	-0.191	-0.466	-0.470	-0.436	-0.402	-0.371	-0.368	-0.463	-0.030	0.049	0.067	0.076	0.075	0.066	0.052	0.018
20	5.0	1.233	0.361	0.074	-0.192	-0.466	-0.470	-0.436	-0.402	-0.371	-0.368	-0.463	-0.035	0.047	0.066	0.075	0.073	0.065	0.051	0.016
21	15.0	1.232	0.356	0.069	-0.193	-0.464	-0.465	-0.433	-0.397	-0.366	-0.362	-0.461	-0.036	0.048	0.066	0.075	0.073	0.065	0.051	0.017
22	25.0	1.230	0.347	0.059	-0.199	-0.464	-0.467	-0.433	-0.397	-0.366	-0.362	-0.461	-0.036	0.048	0.066	0.075	0.073	0.065	0.051	0.015
23	35.0	1.231	0.338	0.049	-0.204	-0.464	-0.461	-0.420	-0.384	-0.354	-0.350	-0.453	-0.042	0.046	0.064	0.073	0.072	0.063	0.050	0.015
24	45.0	1.234	0.330	0.040	-0.208	-0.462	-0.453	-0.409	-0.375	-0.345	-0.340	-0.418	-0.058	0.045	0.062	0.072	0.070	0.062	0.049	0.014
25	54.9	1.234	0.319	0.030	-0.213	-0.460	-0.443	-0.395	-0.360	-0.330	-0.326	-0.418	-0.070	0.045	0.060	0.069	0.061	0.049	0.034	0.014
26	64.9	1.233	0.308	0.020	-0.219	-0.459	-0.433	-0.381	-0.345	-0.315	-0.310	-0.377	-0.100	0.043	0.058	0.066	0.065	0.058	0.047	0.013
27	74.9	1.230	0.295	0.007	-0.225	-0.456	-0.420	-0.367	-0.331	-0.292	-0.291	-0.346	-0.114	0.040	0.055	0.063	0.062	0.055	0.046	0.012
28	85.0	1.232	0.286	-0.004	-0.231	-0.455	-0.408	-0.352	-0.313	-0.287	-0.279	-0.323	-0.142	0.038	0.052	0.060	0.060	0.053	0.044	0.012
29	95.0	1.236	0.277	-0.012	-0.237	-0.458	-0.404	-0.341	-0.303	-0.281	-0.272	-0.307	-0.169	0.035	0.049	0.057	0.056	0.051	0.041	0.010
30	105.0	1.233	0.269	-0.019	-0.239	-0.456	-0.398	-0.329	-0.292	-0.272	-0.265	-0.298	-0.172	0.032	0.046	0.054	0.054	0.048	0.040	0.009
31	115.0	1.232	0.262	-0.023	-0.243	-0.456	-0.398	-0.329	-0.293	-0.266	-0.259	-0.288	-0.160	0.030	0.044	0.051	0.051	0.046	0.038	0.008
32	125.0	1.231	0.254	-0.032	-0.247	-0.456	-0.385	-0.318	-0.286	-0.260	-0.250	-0.264	-0.145	0.024	0.040	0.048	0.048	0.043	0.036	0.005
33	134.9	1.232	0.249	-0.038	-0.250	-0.457	-0.383	-0.309	-0.259	-0.248	-0.249	-0.250	-0.140	0.023	0.037	0.045	0.045	0.041	0.034	0.005
34	144.9	1.230	0.246	-0.039	-0.251	-0.456	-0.379	-0.308	-0.252	-0.241	-0.247	-0.250	-0.121	0.021	0.036	0.044	0.044	0.040	0.034	0.004
35	154.9	1.228	0.243	-0.042	-0.252	-0.455	-0.375	-0.296	-0.242	-0.236	-0.245	-0.243	-0.090	0.020	0.034	0.042	0.042	0.039	0.034	0.004
36	164.9	1.229	0.241	-0.042	-0.252	-0.455	-0.374	-0.294	-0.240	-0.238	-0.244	-0.243	-0.072	0.020	0.034	0.042	0.042	0.039	0.034	0.005
37	174.9	1.230	0.242	-0.043	-0.253	-0.457	-0.376	-0.295	-0.241	-0.238	-0.247	-0.245	-0.068	0.019	0.032	0.040	0.041	0.037	0.032	0.003

ORIFICE	2	3	4	5	6	7	8	9	10
XS PT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CWA	-0.7725	-1.2346	-0.8199	0.1759	1.5774	2.3636	2.6535	1.6118	1.8795
CYX	-0.1135	-0.0266	-0.0364	-0.1134	-0.1940	-0.2338	-0.2302	-0.4615	-0.3792
CAX	3.0566	0.0458	-2.0853	-1.5260	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
XS PT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CWA	3.4496	-1.1724	-0.4872	-0.5531	-0.5623	-0.5394	-0.4467	-0.3149	-0.2110
CYX	-0.4535	1.3477	0.0481	-0.0494	-0.0606	-0.0650	-0.0336	-0.0288	-0.0133
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN	CY	CA	CLW	CLW	CLW
0.169	-0.016	0.046	0.236	-0.029	-0.029

DATE 6-MAR-78 PROJECT NO P41C-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

POPULATION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6

TC-532 41 0.929 3.004 1443.5 837.2 499.2 976.6 80.1

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA CONFIG SURVEY 201  
2.00 13

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
6	-174.9	1.230	0.337	0.055	-0.146	-0.229	-0.091	-0.009	-0.050	-0.092	-0.129	-0.145	-0.129	-0.133	-0.157	-0.194	-0.138	-0.017	0.008	0.002
7	-164.9	1.232	0.341	0.054	-0.147	-0.234	-0.094	-0.009	-0.049	-0.091	-0.131	-0.150	-0.131	-0.112	-0.149	-0.192	-0.124	-0.017	0.008	0.002
8	-153.0	1.230	0.346	0.061	-0.143	-0.234	-0.094	-0.007	-0.051	-0.094	-0.135	-0.158	-0.145	-0.110	-0.147	-0.195	-0.121	-0.015	0.009	0.003
9	-144.9	1.232	0.358	0.069	-0.138	-0.235	-0.096	-0.006	-0.053	-0.098	-0.142	-0.167	-0.150	-0.110	-0.149	-0.201	-0.119	-0.013	0.010	0.003
10	-135.1	1.233	0.365	0.076	-0.132	-0.233	-0.093	-0.006	-0.058	-0.105	-0.151	-0.190	-0.153	-0.112	-0.154	-0.212	-0.114	-0.011	0.011	0.006
11	-125.1	1.235	0.370	0.080	-0.129	-0.235	-0.092	-0.006	-0.062	-0.111	-0.159	-0.192	-0.163	-0.115	-0.161	-0.223	-0.117	-0.011	0.010	0.006
12	-115.1	1.231	0.375	0.088	-0.123	-0.230	-0.084	-0.006	-0.066	-0.120	-0.170	-0.205	-0.161	-0.117	-0.169	-0.237	-0.110	-0.009	0.011	0.007
13	-105.0	1.234	0.382	0.096	-0.116	-0.225	-0.071	-0.006	-0.072	-0.130	-0.184	-0.220	-0.163	-0.121	-0.181	-0.258	-0.102	-0.006	0.014	0.009
14	-95.0	1.234	0.387	0.103	-0.107	-0.216	-0.054	-0.006	-0.078	-0.142	-0.199	-0.236	-0.163	-0.126	-0.194	-0.283	-0.090	-0.004	0.016	0.012
15	-85.0	1.234	0.390	0.116	-0.095	-0.201	-0.034	-0.006	-0.086	-0.158	-0.217	-0.255	-0.165	-0.130	-0.213	-0.318	-0.078	-0.000	0.018	0.015
16	-74.9	1.234	0.391	0.123	-0.087	-0.189	-0.019	-0.006	-0.094	-0.172	-0.235	-0.270	-0.161	-0.136	-0.233	-0.352	-0.066	0.003	0.021	0.017
17	-65.0	1.234	0.389	0.124	-0.080	-0.175	0.002	-0.006	-0.104	-0.191	-0.255	-0.270	-0.151	-0.144	-0.259	-0.391	-0.055	0.006	0.024	0.020
18	-54.9	1.233	0.385	0.127	-0.074	-0.160	0.031	-0.006	-0.113	-0.206	-0.272	-0.287	-0.148	-0.150	-0.287	-0.429	-0.041	0.012	0.029	0.025
19	-45.1	1.237	0.382	0.129	-0.057	-0.145	0.067	0.001	-0.125	-0.223	-0.288	-0.282	-0.140	-0.159	-0.331	-0.453	-0.032	0.017	0.034	0.029
20	-35.1	1.234	0.375	0.130	-0.041	-0.126	0.110	0.013	-0.140	-0.238	-0.304	-0.267	-0.140	-0.170	-0.363	-0.442	-0.035	0.021	0.037	0.032
21	-25.1	1.233	0.365	0.125	-0.039	-0.107	0.150	0.013	-0.161	-0.252	-0.318	-0.241	-0.140	-0.182	-0.410	-0.376	-0.032	0.023	0.037	0.032
22	-15.1	1.232	0.356	0.120	-0.028	-0.092	0.165	0.013	-0.182	-0.259	-0.323	-0.203	-0.140	-0.190	-0.442	-0.297	-0.032	0.024	0.038	0.033
23	-5.0	1.234	0.347	0.114	-0.019	-0.084	0.149	0.025	-0.213	-0.274	-0.331	-0.153	-0.153	-0.198	-0.460	-0.265	-0.018	0.028	0.041	0.035
24	5.0	1.231	0.335	0.102	-0.005	-0.063	0.112	0.048	-0.212	-0.275	-0.330	-0.130	-0.150	-0.195	-0.465	-0.267	-0.014	0.030	0.043	0.037
25	15.0	1.235	0.326	0.094	-0.009	-0.043	0.102	0.048	-0.206	-0.270	-0.315	-0.128	-0.140	-0.190	-0.481	-0.289	-0.016	0.025	0.042	0.038
26	25.0	1.233	0.317	0.080	-0.019	-0.021	0.100	0.048	-0.195	-0.257	-0.288	-0.117	-0.141	-0.185	-0.438	-0.366	-0.037	0.020	0.038	0.035
27	35.0	1.235	0.309	0.069	-0.028	-0.102	0.075	0.048	-0.176	-0.241	-0.267	-0.134	-0.141	-0.179	-0.405	-0.440	-0.037	0.016	0.036	0.034
28	45.0	1.232	0.301	0.060	-0.036	-0.115	0.040	0.035	-0.156	-0.224	-0.248	-0.125	-0.136	-0.171	-0.365	-0.464	-0.045	0.012	0.034	0.031
29	54.9	1.235	0.297	0.051	-0.104	-0.126	0.020	0.036	-0.135	-0.208	-0.230	-0.121	-0.133	-0.164	-0.326	-0.453	-0.056	0.007	0.031	0.029
30	64.9	1.234	0.293	0.044	-0.114	-0.139	0.005	0.019	-0.115	-0.183	-0.214	-0.121	-0.130	-0.158	-0.291	-0.420	-0.071	0.002	0.027	0.025
31	74.9	1.232	0.289	0.037	-0.123	-0.150	-0.009	-0.009	-0.097	-0.152	-0.194	-0.119	-0.128	-0.151	-0.259	-0.379	-0.089	0.004	0.022	0.021
32	84.9	1.233	0.290	0.034	-0.129	-0.157	-0.023	-0.006	-0.083	-0.147	-0.182	-0.119	-0.125	-0.145	-0.236	-0.348	-0.105	0.007	0.019	0.018
33	94.0	1.229	0.283	0.022	-0.145	-0.173	-0.056	-0.006	-0.078	-0.139	-0.176	-0.128	-0.133	-0.148	-0.222	-0.321	-0.136	0.021	0.007	0.005
34	105.0	1.226	0.285	0.022	-0.148	-0.175	-0.066	0.003	-0.066	-0.120	-0.150	-0.114	-0.111	-0.138	-0.203	-0.286	-0.091	0.018	0.007	0.003
35	114.9	1.229	0.289	0.024	-0.149	-0.180	-0.079	0.004	-0.060	-0.111	-0.140	-0.110	-0.110	-0.132	-0.192	-0.268	-0.085	0.018	0.007	0.003
36	125.0	1.227	0.292	0.022	-0.155	-0.194	-0.071	0.003	-0.058	-0.105	-0.135	-0.114	-0.114	-0.130	-0.182	-0.248	-0.093	0.022	0.002	0.001
37	134.9	1.228	0.297	0.026	-0.155	-0.203	-0.069	0.004	-0.053	-0.098	-0.127	-0.112	-0.110	-0.126	-0.172	-0.230	-0.089	0.021	0.003	0.001
38	144.9	1.229	0.304	0.029	-0.157	-0.213	-0.070	0.006	-0.051	-0.093	-0.125	-0.117	-0.110	-0.122	-0.164	-0.217	-0.086	0.022	0.004	0.000
39	154.9	1.226	0.308	0.031	-0.159	-0.221	-0.077	0.006	-0.050	-0.092	-0.123	-0.125	-0.125	-0.121	-0.160	-0.208	-0.099	0.023	0.002	0.002
40	164.9	1.230	0.317	0.036	-0.159	-0.225	-0.084	0.007	-0.049	-0.089	-0.123	-0.125	-0.125	-0.118	-0.154	-0.199	-0.096	0.021	0.003	0.001
41	174.9	1.229	0.322	0.040	-0.156	-0.228	-0.091	0.007	-0.049	-0.089	-0.123	-0.129	-0.111	-0.118	-0.152	-0.194	-0.093	0.021	0.003	0.001

ORIFICE

X5 FT

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DATE 8-MAR-78 PROJECT NO PAIC-40C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 3.001 1448.3 832.2 499.6 975.7 81.5

TC-532 43 0.936

ALFA CONFIG SURVEY 203

ALFAS 2.01

PSAR 2042.2

Y 1.967

Z -1.950

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

PNT DPHI

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.228 0.125 0.048 0.161 0.263 0.108 0.005 0.041 0.069 0.096 0.110 0.097 0.103 0.126 0.148 0.095 0.031 0.005 0.013

1.233 0.231 0.005 0.110 0.270 0.110 0.005 0.039 0.066 0.093 0.108 0.094 0.100 0.121 0.140 0.094 0.031 0.007 0.013

1.235 0.335 0.048 0.160 0.274 0.109 0.005 0.041 0.067 0.096 0.111 0.096 0.101 0.121 0.141 0.094 0.032 0.007 0.014

1.231 0.340 0.054 0.155 0.280 0.103 0.005 0.045 0.072 0.102 0.120 0.100 0.103 0.125 0.149 0.095 0.031 0.007 0.013

1.231 0.343 0.058 0.151 0.281 0.098 0.005 0.045 0.074 0.105 0.123 0.099 0.104 0.127 0.152 0.098 0.029 0.005 0.012

1.234 0.348 0.064 0.146 0.283 0.085 0.004 0.044 0.078 0.111 0.131 0.099 0.106 0.131 0.159 0.100 0.027 0.004 0.011

1.232 0.350 0.068 0.141 0.283 0.076 0.014 0.050 0.083 0.116 0.139 0.100 0.103 0.125 0.159 0.103 0.027 0.003 0.010

1.231 0.350 0.072 0.137 0.283 0.068 0.015 0.054 0.088 0.125 0.149 0.103 0.103 0.112 0.141 0.100 0.026 0.003 0.010

1.231 0.352 0.076 0.132 0.277 0.062 0.014 0.058 0.094 0.134 0.158 0.103 0.103 0.114 0.146 0.100 0.023 0.003 0.008

1.230 0.352 0.079 0.127 0.267 0.056 0.013 0.059 0.101 0.143 0.169 0.105 0.105 0.118 0.155 0.100 0.021 0.003 0.006

1.233 0.351 0.078 0.124 0.259 0.051 0.014 0.062 0.108 0.152 0.179 0.106 0.106 0.122 0.162 0.100 0.018 0.003 0.005

1.229 0.347 0.077 0.123 0.259 0.051 0.014 0.064 0.115 0.161 0.188 0.107 0.107 0.125 0.171 0.100 0.014 0.004 0.004

1.230 0.344 0.078 0.118 0.233 0.044 0.012 0.068 0.121 0.171 0.197 0.104 0.104 0.129 0.181 0.098 0.007 0.009 0.000

1.233 0.341 0.077 0.116 0.235 0.038 0.012 0.068 0.127 0.178 0.203 0.104 0.104 0.131 0.189 0.098 0.003 0.012 0.003

1.230 0.329 0.074 0.115 0.217 0.034 0.012 0.071 0.133 0.186 0.207 0.105 0.105 0.134 0.198 0.098 0.001 0.013 0.004

1.231 0.321 0.067 0.114 0.197 0.019 0.001 0.075 0.142 0.195 0.201 0.105 0.105 0.137 0.212 0.100 0.007 0.019 0.009

1.233 0.315 0.067 0.116 0.192 0.018 0.001 0.077 0.145 0.198 0.198 0.106 0.106 0.138 0.217 0.100 0.007 0.019 0.009

1.232 0.309 0.056 0.119 0.190 0.015 0.001 0.079 0.147 0.198 0.198 0.107 0.107 0.139 0.220 0.100 0.007 0.019 0.008

1.232 0.301 0.048 0.124 0.190 0.015 0.000 0.078 0.144 0.190 0.175 0.108 0.108 0.139 0.220 0.100 0.006 0.019 0.008

1.231 0.295 0.041 0.130 0.190 0.021 0.001 0.077 0.140 0.193 0.150 0.109 0.109 0.137 0.218 0.098 0.006 0.018 0.007

1.231 0.292 0.036 0.133 0.190 0.027 0.001 0.071 0.131 0.173 0.148 0.107 0.107 0.134 0.210 0.098 0.002 0.018 0.008

1.234 0.287 0.029 0.140 0.195 0.036 0.001 0.061 0.124 0.165 0.133 0.107 0.107 0.133 0.203 0.098 0.002 0.016 0.006

1.230 0.282 0.023 0.147 0.200 0.045 0.001 0.061 0.116 0.155 0.132 0.107 0.107 0.130 0.194 0.098 0.001 0.008 0.001

1.230 0.281 0.019 0.151 0.204 0.053 0.003 0.054 0.106 0.143 0.125 0.104 0.104 0.125 0.183 0.098 0.001 0.009 0.001

1.232 0.280 0.017 0.158 0.209 0.062 0.004 0.050 0.098 0.133 0.118 0.102 0.102 0.122 0.174 0.098 0.001 0.008 0.002

1.232 0.280 0.013 0.166 0.216 0.078 0.004 0.048 0.089 0.123 0.118 0.101 0.101 0.118 0.160 0.098 0.001 0.007 0.007

1.227 0.279 0.011 0.168 0.219 0.086 0.004 0.044 0.084 0.116 0.111 0.099 0.099 0.115 0.156 0.098 0.001 0.007 0.009

1.230 0.284 0.013 0.171 0.225 0.088 0.006 0.039 0.079 0.107 0.101 0.096 0.096 0.111 0.147 0.099 0.001 0.007 0.010

1.231 0.286 0.013 0.174 0.236 0.090 0.005 0.039 0.073 0.103 0.103 0.097 0.097 0.110 0.142 0.098 0.001 0.007 0.013

1.229 0.290 0.016 0.175 0.244 0.091 0.006 0.037 0.068 0.097 0.099 0.095 0.095 0.106 0.136 0.098 0.001 0.007 0.014

1.231 0.295 0.017 0.176 0.252 0.095 0.005 0.036 0.067 0.094 0.098 0.095 0.095 0.105 0.132 0.098 0.001 0.007 0.015

1.230 0.300 0.021 0.175 0.257 0.099 0.004 0.037 0.064 0.091 0.091 0.094 0.094 0.103 0.127 0.098 0.001 0.007 0.016

1.233 0.307 0.024 0.174 0.260 0.103 0.005 0.035 0.062 0.088 0.098 0.092 0.092 0.101 0.123 0.098 0.001 0.007 0.015

1.229 0.311 0.027 0.174 0.264 0.109 0.005 0.037 0.063 0.089 0.099 0.094 0.094 0.101 0.122 0.098 0.001 0.007 0.016

1.229 0.317 0.033 0.170 0.267 0.112 0.006 0.037 0.063 0.088 0.099 0.094 0.094 0.100 0.119 0.098 0.001 0.007 0.015

ORIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.2778 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CNX 0.0588 -0.2400 -0.7065 -1.2192 -1.4146 0.0674 0.6174 1.2833 1.6548

CYX 0.4732 0.7141 0.5131 -0.7730 0.1434 -0.2903 0.1687 -0.1572 -0.2954

CAX 3.2656 0.5589 -1.3219 -0.7861 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNX 1.3684 0.2055 0.6131 1.3457 2.9820 -0.4876 -0.6536 -0.4481 -0.3839

CYX -0.9286 0.1747 0.0113 0.4114 0.3788 0.0000 0.0591 0.0000 -0.0018

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CM 0.129 0.013 0.108 -0.243 0.060 0.060 0.060 0.060 0.060



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE  
TEST PART MACH REX10-6 PT  
TC-532 44 0.926 2.999 1448.5 832.6 499.5 975.6 81.8

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 204 ALPHA 2.01 PHAR 2042.5 X 11.467 Y 3.500 Z -1.950

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	-174.9	1.234	0.294	0.008	-0.211	-0.416	-0.325	-0.217	-0.148	-0.161	-0.153	-0.064	-0.021	0.001	0.015	0.010	0.031	0.033	0.028	0.001
2	-165.0	1.231	0.297	0.006	-0.212	-0.416	-0.325	-0.217	-0.148	-0.161	-0.153	-0.061	-0.020	0.003	0.019	0.032	0.035	0.034	0.029	0.001
3	-155.0	1.230	0.301	0.008	-0.211	-0.420	-0.345	-0.225	-0.158	-0.169	-0.158	-0.059	-0.019	0.004	0.019	0.032	0.036	0.033	0.029	0.001
4	-144.9	1.230	0.306	0.012	-0.209	-0.421	-0.345	-0.234	-0.168	-0.174	-0.159	-0.057	-0.019	0.004	0.020	0.033	0.036	0.034	0.029	0.001
5	-135.1	1.233	0.313	0.017	-0.206	-0.431	-0.350	-0.245	-0.178	-0.181	-0.176	-0.055	-0.017	0.006	0.022	0.035	0.037	0.036	0.031	0.003
6	-125.1	1.234	0.320	0.023	-0.204	-0.431	-0.355	-0.255	-0.191	-0.194	-0.192	-0.055	-0.015	0.006	0.023	0.036	0.039	0.037	0.032	0.003
7	-115.1	1.232	0.324	0.026	-0.203	-0.423	-0.362	-0.267	-0.208	-0.198	-0.205	-0.058	-0.016	0.007	0.023	0.037	0.039	0.037	0.031	0.003
8	-105.0	1.234	0.332	0.032	-0.200	-0.424	-0.368	-0.279	-0.223	-0.206	-0.215	-0.055	-0.014	0.008	0.025	0.039	0.041	0.039	0.033	0.004
9	-95.0	1.231	0.337	0.036	-0.197	-0.425	-0.374	-0.290	-0.235	-0.213	-0.227	-0.056	-0.014	0.009	0.026	0.040	0.043	0.040	0.033	0.003
10	-85.0	1.232	0.344	0.043	-0.194	-0.427	-0.383	-0.302	-0.243	-0.221	-0.243	-0.058	-0.012	0.011	0.029	0.043	0.045	0.042	0.034	0.004
11	-74.9	1.230	0.348	0.049	-0.191	-0.427	-0.389	-0.312	-0.256	-0.228	-0.250	-0.052	-0.009	0.014	0.032	0.046	0.048	0.044	0.036	0.006
12	-65.0	1.232	0.355	0.056	-0.187	-0.428	-0.396	-0.324	-0.271	-0.236	-0.261	-0.049	-0.006	0.017	0.036	0.050	0.052	0.047	0.038	0.007
13	-54.9	1.231	0.360	0.064	-0.182	-0.439	-0.401	-0.334	-0.288	-0.245	-0.272	-0.048	-0.003	0.021	0.039	0.054	0.054	0.049	0.040	0.008
14	-45.0	1.232	0.361	0.070	-0.181	-0.433	-0.407	-0.340	-0.312	-0.253	-0.286	-0.048	-0.001	0.024	0.042	0.056	0.056	0.051	0.039	0.007
15	-35.1	1.232	0.363	0.076	-0.177	-0.435	-0.412	-0.344	-0.330	-0.255	-0.287	-0.047	0.003	0.027	0.045	0.059	0.059	0.052	0.041	0.008
16	-25.1	1.232	0.363	0.079	-0.175	-0.437	-0.417	-0.353	-0.335	-0.254	-0.305	-0.045	0.006	0.030	0.049	0.062	0.062	0.055	0.042	0.009
17	-15.0	1.232	0.361	0.077	-0.177	-0.440	-0.424	-0.363	-0.346	-0.253	-0.311	-0.044	0.009	0.032	0.051	0.064	0.063	0.056	0.044	0.009
18	-5.0	1.233	0.358	0.075	-0.180	-0.443	-0.430	-0.372	-0.338	-0.249	-0.314	-0.042	0.011	0.035	0.052	0.065	0.065	0.057	0.044	0.011
19	5.0	1.235	0.353	0.069	-0.185	-0.447	-0.434	-0.371	-0.327	-0.244	-0.315	-0.044	0.012	0.035	0.052	0.065	0.065	0.057	0.044	0.010
20	15.0	1.234	0.344	0.062	-0.190	-0.448	-0.431	-0.371	-0.327	-0.234	-0.311	-0.049	0.012	0.034	0.052	0.065	0.065	0.057	0.043	0.009
21	24.9	1.233	0.334	0.053	-0.196	-0.449	-0.428	-0.359	-0.318	-0.223	-0.304	-0.056	0.009	0.031	0.051	0.065	0.064	0.056	0.043	0.008
22	35.0	1.230	0.324	0.042	-0.202	-0.449	-0.418	-0.358	-0.308	-0.213	-0.293	-0.067	0.006	0.030	0.049	0.063	0.062	0.055	0.042	0.007
23	45.0	1.232	0.316	0.034	-0.207	-0.448	-0.409	-0.349	-0.291	-0.208	-0.278	-0.076	0.003	0.027	0.047	0.060	0.061	0.053	0.041	0.006
24	54.9	1.232	0.307	0.025	-0.210	-0.444	-0.398	-0.335	-0.267	-0.200	-0.261	-0.084	-0.002	0.023	0.044	0.058	0.059	0.052	0.040	0.006
25	64.9	1.232	0.300	0.017	-0.214	-0.441	-0.388	-0.321	-0.241	-0.193	-0.245	-0.091	-0.007	0.020	0.040	0.055	0.056	0.049	0.039	0.005
26	74.9	1.231	0.292	0.010	-0.216	-0.436	-0.377	-0.308	-0.213	-0.184	-0.228	-0.108	-0.012	0.015	0.035	0.051	0.052	0.047	0.037	0.004
27	84.9	1.233	0.287	0.004	-0.218	-0.434	-0.369	-0.295	-0.198	-0.178	-0.216	-0.117	-0.015	0.012	0.033	0.048	0.050	0.045	0.036	0.004
28	95.0	1.233	0.283	0.000	-0.219	-0.430	-0.360	-0.282	-0.178	-0.171	-0.203	-0.119	-0.019	0.009	0.029	0.044	0.047	0.043	0.034	0.002
29	105.0	1.230	0.280	0.003	-0.219	-0.428	-0.355	-0.281	-0.168	-0.167	-0.196	-0.121	-0.021	0.006	0.026	0.041	0.044	0.040	0.032	0.002
30	115.0	1.231	0.278	0.005	-0.220	-0.427	-0.349	-0.269	-0.154	-0.163	-0.183	-0.112	-0.033	0.004	0.024	0.038	0.042	0.038	0.031	0.000
31	125.0	1.233	0.278	0.007	-0.221	-0.426	-0.345	-0.260	-0.147	-0.160	-0.175	-0.107	-0.035	0.002	0.021	0.036	0.039	0.036	0.029	0.000
32	134.9	1.233	0.277	0.008	-0.221	-0.424	-0.338	-0.249	-0.138	-0.157	-0.162	-0.094	-0.035	0.000	0.018	0.033	0.035	0.034	0.028	-0.001
33	144.9	1.229	0.277	0.008	-0.219	-0.422	-0.336	-0.247	-0.137	-0.155	-0.156	-0.087	-0.035	0.000	0.018	0.033	0.035	0.034	0.028	-0.001
34	154.9	1.230	0.281	0.005	-0.219	-0.422	-0.334	-0.235	-0.137	-0.155	-0.148	-0.077	-0.034	0.000	0.018	0.031	0.035	0.033	0.028	-0.001
35	164.9	1.230	0.283	0.003	-0.218	-0.421	-0.335	-0.235	-0.138	-0.157	-0.147	-0.072	-0.032	0.001	0.018	0.031	0.034	0.033	0.028	0.000
36	174.9	1.232	0.287	0.001	-0.217	-0.422	-0.336	-0.233	-0.143	-0.160	-0.151	-0.070	-0.032	0.001	0.018	0.031	0.034	0.033	0.028	0.000

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	-0.4192	-0.7726	-0.4398	0.4024	1.5027	2.3264	3.1092	1.3621	2.5790
CYX	0.3700	0.4545	0.3712	0.1540	-0.1594	0.0424	-0.7725	-0.7221	-0.3178
CAX	3.2748	0.3497	-1.8460	-1.4264	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	-0.3419	-0.5156	-0.5181	-0.5561	-0.5526	-0.4578	-0.3878	-0.2565	-0.1462
CYX	0.8818	0.0651	0.0071	-0.0340	-0.0463	-0.0316	-0.0229	0.0020	0.0331
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CH 0.152 CY 0.013 CA 0.070 CLW 0.372 CLW 0.091

DATE 8-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH PT P Q V1 T7 DATE AEDC PROPULSION WIND TUNNEL

TC-532 46 0.924 2.997 1449.7 835.1 498.9 974.2 82.2 2-16-78 TRANSONIC 47

ALFA CONFIG SURVEY 201 ALPHA 4.99 PHAR 2042.4 X 11.967 Y 3.500 Z -1.300

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.9	1.229	0.433	0.156	-0.036	-0.125	0.007	0.042	0.020	-0.002	-0.017	-0.027	-0.047	-0.074	-0.121	-0.127	-0.047	-0.014	0.006	-0.001
8	-164.9	1.230	0.442	0.161	-0.034	-0.126	0.004	0.042	0.022	-0.000	-0.016	-0.027	-0.046	-0.072	-0.109	-0.126	-0.049	-0.012	0.007	0.001
9	-153.0	1.229	0.453	0.170	-0.028	-0.124	0.005	0.042	0.020	-0.002	-0.019	-0.029	-0.050	-0.075	-0.108	-0.131	-0.047	-0.010	0.010	0.004
10	-144.9	1.228	0.463	0.181	-0.019	-0.118	0.009	0.043	0.021	-0.004	-0.022	-0.036	-0.053	-0.077	-0.113	-0.135	-0.043	-0.006	0.013	0.008
11	-135.1	1.232	0.471	0.192	-0.010	-0.112	0.016	0.043	0.021	-0.006	-0.026	-0.036	-0.055	-0.080	-0.114	-0.143	-0.040	-0.004	0.016	0.010
12	-125.1	1.231	0.475	0.200	-0.001	-0.103	0.027	0.042	0.019	-0.014	-0.034	-0.042	-0.060	-0.086	-0.127	-0.159	-0.039	-0.003	0.017	0.012
13	-115.1	1.232	0.477	0.212	0.012	-0.089	0.043	0.053	0.016	-0.023	-0.042	-0.047	-0.065	-0.093	-0.141	-0.182	-0.035	-0.001	0.020	0.015
14	-105.0	1.232	0.475	0.213	0.018	-0.080	0.051	0.053	0.012	-0.031	-0.049	-0.052	-0.070	-0.100	-0.155	-0.203	-0.033	0.000	0.020	0.016
15	-95.0	1.232	0.470	0.216	0.025	-0.069	0.060	0.066	0.008	-0.040	-0.057	-0.055	-0.074	-0.106	-0.172	-0.230	-0.028	0.003	0.024	0.021
16	-85.0	1.231	0.462	0.217	0.031	-0.057	0.067	0.066	0.004	-0.030	-0.066	-0.060	-0.080	-0.115	-0.193	-0.258	-0.025	0.004	0.024	0.021
17	-75.0	1.230	0.453	0.217	0.038	-0.043	0.076	0.075	0.001	-0.061	-0.073	-0.083	-0.085	-0.121	-0.215	-0.280	-0.020	0.008	0.027	0.024
18	-65.0	1.230	0.439	0.216	0.045	-0.025	0.091	0.087	-0.005	-0.073	-0.082	-0.085	-0.088	-0.129	-0.246	-0.296	-0.014	0.012	0.030	0.027
19	-54.9	1.234	0.425	0.212	0.049	-0.007	0.130	0.096	-0.014	-0.088	-0.091	-0.095	-0.093	-0.137	-0.284	-0.302	-0.005	0.017	0.033	0.031
20	-45.1	1.231	0.406	0.204	0.052	0.009	0.183	0.105	-0.025	-0.101	-0.098	-0.083	-0.095	-0.146	-0.339	-0.266	0.004	0.023	0.037	0.034
21	-35.1	1.229	0.388	0.194	0.052	0.022	0.228	0.108	-0.042	-0.111	-0.105	-0.058	-0.099	-0.154	-0.331	-0.228	0.011	0.026	0.038	0.035
22	-25.1	1.228	0.371	0.183	0.049	0.034	0.256	0.108	-0.064	-0.119	-0.112	-0.041	-0.100	-0.161	-0.415	-0.193	0.019	0.030	0.040	0.037
23	-15.0	1.230	0.355	0.169	0.046	0.043	0.256	0.061	-0.020	-0.171	-0.182	-0.138	-0.091	-0.174	-0.457	-0.167	0.025	0.032	0.041	0.037
24	-5.1	1.227	0.338	0.155	0.039	0.045	0.177	0.020	-0.171	-0.182	-0.138	-0.091	-0.113	-0.183	-0.488	-0.156	0.027	0.032	0.040	0.036
25	5.0	1.228	0.325	0.142	0.033	0.041	0.141	-0.018	-0.160	-0.154	-0.126	-0.039	-0.108	-0.184	-0.467	-0.148	0.027	0.035	0.042	0.037
26	15.0	1.230	0.316	0.131	0.025	0.034	0.128	-0.016	-0.153	-0.136	-0.107	-0.039	-0.108	-0.182	-0.454	-0.152	0.021	0.034	0.042	0.036
27	25.0	1.229	0.306	0.119	0.017	0.022	0.117	-0.005	-0.134	-0.116	-0.089	-0.064	-0.084	-0.179	-0.430	-0.169	0.015	0.031	0.040	0.035
28	35.0	1.227	0.296	0.104	0.005	0.007	0.102	0.003	-0.104	-0.094	-0.072	-0.058	-0.095	-0.168	-0.394	-0.208	0.003	0.025	0.038	0.032
29	45.0	1.225	0.280	0.093	-0.006	-0.006	0.084	-0.022	-0.076	-0.077	-0.059	-0.052	-0.085	-0.150	-0.347	-0.258	-0.011	0.015	0.032	0.027
30	54.9	1.225	0.287	0.084	-0.015	-0.017	0.089	-0.037	-0.049	-0.039	-0.047	-0.045	-0.070	-0.136	-0.303	-0.285	-0.023	0.005	0.025	0.022
31	64.9	1.224	0.286	0.078	-0.026	-0.030	0.087	-0.051	-0.027	-0.043	-0.037	-0.041	-0.071	-0.126	-0.287	-0.292	-0.035	-0.005	0.017	0.016
32	74.9	1.221	0.287	0.070	-0.038	-0.045	0.088	-0.060	-0.011	-0.032	-0.033	-0.039	-0.068	-0.117	-0.235	-0.290	-0.048	-0.014	0.009	0.009
33	84.9	1.223	0.291	0.066	-0.048	-0.054	0.076	-0.060	0.003	-0.021	-0.026	-0.035	-0.065	-0.110	-0.210	-0.274	-0.056	-0.022	0.003	0.003
34	95.0	1.220	0.296	0.065	-0.058	-0.062	0.044	-0.069	0.014	-0.012	-0.021	-0.033	-0.068	-0.103	-0.188	-0.251	-0.065	-0.029	-0.004	-0.004
35	105.0	1.220	0.303	0.067	-0.063	-0.069	0.032	-0.070	0.018	-0.007	-0.019	-0.032	-0.058	-0.099	-0.175	-0.234	-0.089	-0.032	-0.007	-0.008
36	114.9	1.220	0.313	0.070	-0.069	-0.081	0.023	-0.070	0.023	-0.003	-0.017	-0.031	-0.051	-0.094	-0.182	-0.215	-0.072	-0.034	-0.009	-0.011
37	125.0	1.223	0.329	0.077	-0.073	-0.093	0.012	-0.071	0.024	-0.000	-0.016	-0.030	-0.050	-0.089	-0.199	-0.217	-0.074	-0.036	-0.012	-0.014
38	134.9	1.223	0.345	0.086	-0.074	-0.108	0.003	-0.068	0.024	0.000	-0.016	-0.030	-0.058	-0.086	-0.137	-0.177	-0.076	-0.036	-0.013	-0.017
39	144.9	1.224	0.362	0.097	-0.071	-0.117	-0.000	-0.069	0.025	0.002	-0.014	-0.038	-0.051	-0.081	-0.127	-0.160	-0.072	-0.031	-0.011	-0.015
40	154.9	1.222	0.380	0.110	-0.067	-0.125	-0.002	0.058	0.024	0.003	-0.014	-0.040	-0.058	-0.050	-0.077	-0.119	-0.067	-0.028	-0.008	-0.014
41	164.9	1.227	0.395	0.121	-0.060	-0.127	-0.001	0.060	0.026	0.004	-0.013	-0.036	-0.041	-0.074	-0.113	-0.136	-0.062	-0.025	-0.004	-0.010
42	174.9	1.228	0.416	0.136	-0.051	-0.129	-0.000	0.051	0.024	0.004	-0.013	-0.035	-0.048	-0.072	-0.108	-0.127	-0.056	-0.019	0.001	-0.006

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	0.5654	-0.1143	-1.2452	-2.5852	-2.9045	0.2633	2.2849	2.2175	1.5490
CYX	1.1344	1.7181	1.1915	0.0067	0.5936	0.3312	0.2412	-0.4169	-0.5953
CAX	3.0055	1.7581	-0.0788	-0.1731	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	0.2965	0.9160	1.6285	5.2616	1.2310	-1.2609	-0.8499	-0.6793	-0.7033
CYX	-0.5337	-0.1917	0.0278	0.3554	0.2453	0.5311	0.4007	0.3736	0.3391
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CLW 0.190 CLW -0.250 CLW 0.294



DATE 6-MAR-78 PROJECT NO PAIC-W0C

ARO, INC.

AEDC DIVISION

A SPERSUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-532 47 0.925 3.001 1452.9 836.2 500.4

DATE 2-16-78

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DATE 6-MAR-78 PROJECT NO PAIC-W0C

ARO, INC.

AEDC DIVISION

A SPERSUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-532 47 0.925 3.001 1452.9 836.2 500.4

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DATE 6-MAR-78 PROJECT NO P41C-MOC

APD, INC.  
AEDC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

ARNOLD AIR FORCE STATION, TENNESSEE													AEDC PROPUSSION WIND TUNNEL												
TEST PART MACH RE10-6													TRANSONIC 4T												
TC-532 48 0.925 3.001 1453.3 836.4 500.6 975.5 82.7													2-10-78												
ALFA CONFIG SURVEY ALFAS PRAP X Y Z																									
5.00 13 203 4.99 2042.6 11.967 3.500 -1.950																									
PNT																									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19																									
-174.8 1.229 0.416 0.137-0.059-0.158-0.013 0.046 0.028 0.014-0.001-0.014-0.032-0.053-0.078-0.085-0.047-0.017 0.001-0.010																									
-164.9 1.232 0.423 0.140-0.059-0.162-0.014 0.047 0.030 0.017 0.002-0.013-0.030-0.048-0.070-0.077-0.044-0.014 0.003-0.008																									
-155.0 1.231 0.429 0.145-0.055-0.161-0.012 0.047 0.029 0.015-0.001-0.013-0.032-0.050-0.070-0.079-0.048-0.014 0.003-0.007																									
-144.9 1.230 0.433 0.152-0.049-0.157-0.003 0.046 0.027 0.013-0.004-0.013-0.032-0.052-0.073-0.084-0.045-0.013 0.004-0.006																									
-135.1 1.232 0.436 0.161-0.041-0.151 0.009 0.047 0.026 0.011-0.006-0.018-0.037-0.055-0.077-0.089-0.044-0.011 0.006-0.004																									
-125.1 1.233 0.436 0.163-0.036-0.146 0.013 0.047 0.026 0.009-0.009-0.021-0.039-0.058-0.082-0.097-0.046-0.012 0.006-0.004																									
-115.1 1.229 0.431 0.161-0.034-0.143 0.015 0.047 0.025 0.006-0.012-0.024-0.043-0.063-0.088-0.108-0.048-0.012 0.005-0.004																									
-105.1 1.230 0.426 0.160-0.033-0.137 0.014 0.047 0.024 0.003-0.016-0.028-0.047-0.068-0.096-0.122-0.049-0.012 0.005-0.004																									
-95.0 1.232 0.419 0.158-0.029-0.128 0.015 0.049 0.026 0.001-0.019-0.031-0.050-0.072-0.105-0.138-0.049-0.011 0.006-0.003																									
-85.0 1.231 0.407 0.153-0.028-0.123 0.015 0.047 0.022-0.005-0.035-0.056-0.080-0.118-0.159-0.055-0.013 0.004-0.004																									
-75.0 1.230 0.394 0.147-0.028-0.113 0.021 0.048 0.021-0.010-0.031-0.048-0.061-0.086-0.129-0.181-0.049-0.012 0.005-0.004																									
-65.0 1.229 0.382 0.141-0.027-0.106 0.026 0.050 0.020-0.014-0.035-0.048-0.065-0.091-0.140-0.200-0.047-0.011 0.006-0.003																									
-54.9 1.231 0.369 0.135-0.027-0.099 0.032 0.060 0.018-0.018-0.039-0.046-0.067-0.096-0.151-0.219-0.043-0.008 0.007-0.002																									
-45.1 1.233 0.354 0.126-0.029-0.093 0.038 0.066 0.015-0.023-0.044-0.049-0.070-0.100-0.163-0.238-0.038-0.006 0.009-0.000																									
-35.1 1.231 0.341 0.117-0.031-0.089 0.043 0.060 0.012-0.028-0.047-0.050-0.073-0.104-0.172-0.250-0.035-0.004 0.009-0.000																									
-25.1 1.229 0.327 0.107-0.034-0.083 0.049 0.061 0.009-0.032-0.048-0.050-0.074-0.106-0.182-0.260-0.029 0.004 0.012 0.002																									
-15.1 1.232 0.316 0.098-0.036-0.078 0.054 0.062 0.006-0.034-0.048-0.050-0.073-0.107-0.188-0.265-0.024 0.004 0.015 0.004																									
-5.0 1.230 0.305 0.088-0.042-0.076 0.056 0.060 0.001-0.035-0.049-0.050-0.074-0.108-0.193-0.268-0.023 0.004 0.015 0.003																									
5.0 1.228 0.294 0.078-0.048-0.076 0.056 0.060 0.000-0.030-0.047-0.049-0.072-0.108-0.195-0.260-0.021 0.005 0.015 0.004																									
15.0 1.229 0.285 0.070-0.053-0.076 0.055 0.061 0.004-0.034-0.042-0.045-0.069-0.105-0.192-0.251-0.021 0.005 0.015 0.004																									
25.0 1.228 0.280 0.061-0.059-0.077 0.052 0.062 0.009-0.024-0.037-0.041-0.065-0.102-0.186-0.244-0.024 0.004 0.015 0.004																									
35.0 1.227 0.274 0.054-0.067-0.082 0.047 0.061 0.014-0.019-0.031-0.038-0.062-0.098-0.179-0.239-0.029 0.000 0.013 0.002																									
45.0 1.226 0.272 0.048-0.073-0.086 0.042 0.062 0.021-0.010-0.024-0.033-0.057-0.093-0.168-0.227-0.035-0.004 0.011 0.000																									
54.9 1.226 0.272 0.048-0.078-0.088 0.038 0.064 0.022-0.001-0.017-0.022-0.031-0.051-0.086-0.156-0.212-0.038-0.006 0.009-0.000																									
64.9 1.227 0.273 0.039-0.087-0.095 0.027 0.074 0.032-0.004-0.012-0.023-0.048-0.082-0.146-0.199-0.049-0.014 0.003-0.006																									
74.9 1.221 0.273 0.038-0.095-0.103 0.014 0.073 0.034-0.008-0.009-0.021-0.047-0.080-0.137-0.180-0.057-0.030-0.003-0.011																									
84.9 1.224 0.282 0.039-0.100-0.106 0.000 0.076 0.039-0.014-0.003-0.018-0.041-0.072-0.124-0.166-0.061-0.023-0.005-0.014																									
95.0 1.223 0.288 0.040-0.104-0.113 0.008 0.075 0.038-0.016-0.003-0.018-0.041-0.071-0.117-0.157-0.067-0.028-0.009-0.017																									
105.0 1.222 0.298 0.043-0.110-0.127 0.017 0.074 0.035-0.015-0.003-0.016-0.041-0.069-0.111-0.145-0.073-0.035-0.015-0.022																									
114.9 1.223 0.309 0.050-0.109-0.135 0.020 0.074 0.035-0.017-0.000-0.013-0.038-0.065-0.103-0.133-0.070-0.034-0.019-0.023																									
125.0 1.223 0.327 0.061-0.107-0.145 0.022 0.065 0.035-0.016-0.001-0.014-0.036-0.060-0.095-0.118-0.071-0.034-0.015-0.023																									
134.9 1.224 0.343 0.073-0.104-0.155 0.025 0.055 0.033-0.017-0.000-0.014-0.035-0.058-0.088-0.108-0.068-0.034-0.016-0.024																									
144.9 1.227 0.357 0.081-0.099-0.160 0.025 0.054 0.032-0.017-0.001-0.013-0.033-0.056-0.084-0.101-0.066-0.032-0.014-0.024																									
154.9 1.227 0.373 0.094-0.092-0.165 0.024 0.054 0.030-0.017-0.001-0.013-0.032-0.054-0.079-0.092-0.061-0.029-0.012-0.022																									
164.9 1.227 0.385 0.104-0.086-0.168 0.024 0.044 0.029-0.016-0.000-0.013-0.032-0.053-0.076-0.087-0.058-0.026-0.009-0.020																									
174.9 1.229 0.400 0.117-0.077-0.166 0.021 0.046 0.030-0.018-0.003-0.011-0.029-0.049-0.071-0.080-0.051-0.021-0.004-0.015																									

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX1	0.7034	0.4562	-0.4111	-1.4179	-1.1692	-0.2122	0.3510	0.7579	0.7415
CX2	0.8337	1.3235	1.0681	-0.1420	0.2966	-0.3274	-0.1785	-0.2433	-0.2949
CX3	3.6222	1.2268	-0.5630	-0.3981	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX1	0.5688	0.6555	0.9117	1.9021	2.9483	-0.4584	-0.4025	-0.3100	-0.2984
CX2	-0.2364	-0.1778	-0.0559	0.1812	0.1631	0.2315	0.2217	0.2137	0.2054
CX3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CM	CY	CA	CLM	CLN	CLN				
0.192	0.101	0.168	-0.164	0.224					





DATE 4-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REXIO-6 PT

TC-532 67 0.949 2.995 1428.1 799.7 504.4 995.0 80.0

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

13

2

ALFA

0.02

3.500

PHAM

2043.3

-1.300

PWT	DSHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.9	1.244	0.289	0.012	-0.193	-0.318	-0.223	0.035	-0.048	-0.102	-0.151	-0.194	-0.235	-0.275	-0.315	-0.355	-0.395	-0.435	-0.475	-0.515
8	-185.0	1.242	0.290	0.009	-0.197	-0.321	-0.234	0.035	-0.048	-0.102	-0.152	-0.196	-0.236	-0.276	-0.316	-0.356	-0.396	-0.436	-0.476	-0.516
9	-155.0	1.243	0.295	0.012	-0.196	-0.328	-0.238	0.035	-0.048	-0.104	-0.155	-0.200	-0.240	-0.280	-0.320	-0.360	-0.400	-0.440	-0.480	-0.520
10	-144.9	1.242	0.302	0.015	-0.193	-0.334	-0.243	0.035	-0.051	-0.108	-0.161	-0.206	-0.246	-0.286	-0.326	-0.366	-0.406	-0.446	-0.486	-0.526
11	-135.1	1.240	0.308	0.020	-0.191	-0.338	-0.247	0.035	-0.058	-0.115	-0.169	-0.214	-0.254	-0.294	-0.334	-0.374	-0.414	-0.454	-0.494	-0.534
12	-125.0	1.241	0.315	0.027	-0.187	-0.342	-0.249	0.034	-0.065	-0.122	-0.177	-0.224	-0.263	-0.303	-0.343	-0.383	-0.423	-0.463	-0.503	-0.543
13	-115.0	1.242	0.327	0.037	-0.180	-0.345	-0.248	0.037	-0.068	-0.135	-0.191	-0.239	-0.277	-0.316	-0.356	-0.396	-0.436	-0.476	-0.516	-0.556
14	-105.0	1.244	0.337	0.047	-0.173	-0.357	-0.246	0.036	-0.071	-0.148	-0.206	-0.255	-0.290	-0.328	-0.366	-0.404	-0.442	-0.480	-0.518	-0.556
15	-95.0	1.243	0.346	0.056	-0.166	-0.367	-0.239	0.033	-0.083	-0.161	-0.222	-0.272	-0.307	-0.345	-0.383	-0.421	-0.459	-0.497	-0.535	-0.573
16	-85.0	1.244	0.354	0.065	-0.158	-0.375	-0.229	0.031	-0.094	-0.177	-0.240	-0.291	-0.316	-0.354	-0.392	-0.430	-0.468	-0.506	-0.544	-0.582
17	-74.9	1.243	0.363	0.074	-0.148	-0.380	-0.215	0.014	-0.103	-0.192	-0.256	-0.309	-0.330	-0.367	-0.405	-0.443	-0.481	-0.519	-0.557	-0.595
18	-65.0	1.246	0.371	0.083	-0.139	-0.386	-0.186	0.003	-0.115	-0.211	-0.278	-0.331	-0.346	-0.377	-0.415	-0.453	-0.491	-0.529	-0.567	-0.605
19	-54.9	1.243	0.376	0.088	-0.127	-0.385	-0.091	0.004	-0.128	-0.232	-0.297	-0.351	-0.356	-0.378	-0.415	-0.453	-0.491	-0.529	-0.567	-0.605
20	-44.9	1.243	0.379	0.108	-0.116	-0.381	0.019	0.003	-0.143	-0.250	-0.314	-0.354	-0.351	-0.375	-0.412	-0.450	-0.488	-0.526	-0.564	-0.602
21	-35.1	1.247	0.382	0.117	-0.108	-0.376	0.066	0.002	-0.155	-0.265	-0.327	-0.355	-0.341	-0.372	-0.409	-0.447	-0.485	-0.523	-0.561	-0.599
22	-25.0	1.242	0.380	0.118	-0.101	-0.372	0.098	0.001	-0.160	-0.273	-0.331	-0.355	-0.327	-0.360	-0.400	-0.440	-0.480	-0.520	-0.560	-0.600
23	-15.0	1.245	0.378	0.116	-0.098	-0.368	0.125	0.010	-0.180	-0.278	-0.332	-0.348	-0.311	-0.345	-0.395	-0.445	-0.495	-0.545	-0.595	-0.645
24	-5.0	1.245	0.373	0.117	-0.098	-0.360	0.136	0.020	-0.180	-0.276	-0.327	-0.340	-0.315	-0.348	-0.400	-0.450	-0.500	-0.550	-0.600	-0.650
25	5.0	1.244	0.367	0.107	-0.099	-0.287	0.150	0.070	-0.170	-0.273	-0.319	-0.321	-0.308	-0.260	-0.310	-0.360	-0.410	-0.460	-0.510	-0.560
26	15.0	1.245	0.358	0.098	-0.104	-0.271	0.173	0.070	-0.170	-0.266	-0.313	-0.319	-0.303	-0.250	-0.300	-0.350	-0.400	-0.450	-0.500	-0.550
27	25.0	1.245	0.349	0.089	-0.111	-0.258	0.173	0.066	-0.150	-0.255	-0.308	-0.286	-0.307	-0.235	-0.274	-0.324	-0.374	-0.424	-0.474	-0.524
28	35.0	1.244	0.339	0.078	-0.121	-0.253	0.142	0.055	-0.140	-0.240	-0.286	-0.322	-0.315	-0.233	-0.261	-0.311	-0.361	-0.411	-0.461	-0.511
29	45.0	1.245	0.329	0.068	-0.131	-0.261	0.091	0.005	-0.120	-0.224	-0.281	-0.331	-0.318	-0.220	-0.242	-0.292	-0.342	-0.392	-0.442	-0.492
30	54.9	1.247	0.323	0.058	-0.137	-0.269	0.053	0.003	-0.110	-0.207	-0.268	-0.318	-0.310	-0.226	-0.230	-0.280	-0.330	-0.380	-0.430	-0.480
31	64.9	1.243	0.312	0.046	-0.149	-0.281	0.017	0.002	-0.103	-0.190	-0.247	-0.300	-0.297	-0.220	-0.228	-0.278	-0.328	-0.378	-0.428	-0.478
32	74.9	1.245	0.308	0.039	-0.156	-0.283	0.052	0.001	-0.093	-0.174	-0.230	-0.281	-0.283	-0.225	-0.238	-0.288	-0.338	-0.388	-0.438	-0.488
33	84.9	1.245	0.300	0.031	-0.164	-0.289	0.109	0.001	-0.081	-0.158	-0.212	-0.262	-0.271	-0.221	-0.254	-0.304	-0.354	-0.404	-0.454	-0.504
34	95.0	1.245	0.295	0.024	-0.172	-0.287	0.161	0.012	-0.072	-0.143	-0.197	-0.245	-0.261	-0.231	-0.264	-0.314	-0.364	-0.414	-0.464	-0.514
35	105.0	1.244	0.289	0.018	-0.178	-0.289	0.188	0.012	-0.065	-0.133	-0.186	-0.233	-0.254	-0.230	-0.263	-0.313	-0.363	-0.413	-0.463	-0.513
36	115.0	1.245	0.287	0.014	-0.182	-0.292	0.203	0.022	-0.061	-0.125	-0.177	-0.224	-0.249	-0.230	-0.263	-0.313	-0.363	-0.413	-0.463	-0.513
37	125.0	1.244	0.283	0.010	-0.186	-0.297	0.217	0.023	-0.058	-0.116	-0.168	-0.214	-0.244	-0.230	-0.263	-0.313	-0.363	-0.413	-0.463	-0.513
38	134.9	1.244	0.281	0.007	-0.190	-0.302	0.229	0.022	-0.051	-0.110	-0.160	-0.206	-0.240	-0.241	-0.272	-0.322	-0.372	-0.422	-0.472	-0.522
39	144.9	1.244	0.280	0.005	-0.194	-0.305	0.242	0.022	-0.040	-0.104	-0.154	-0.199	-0.235	-0.243	-0.274	-0.324	-0.374	-0.424	-0.474	-0.524
40	154.9	1.241	0.279	0.004	-0.196	-0.303	0.248	0.022	-0.045	-0.100	-0.149	-0.194	-0.232	-0.243	-0.274	-0.324	-0.374	-0.424	-0.474	-0.524
41	164.9	1.242	0.281	0.002	-0.198	-0.304	0.251	0.031	-0.044	-0.098	-0.147	-0.192	-0.231	-0.246	-0.277	-0.327	-0.377	-0.427	-0.477	-0.527
42	174.9	1.241	0.283	0.004	-0.197	-0.308	0.246	0.042	-0.043	-0.097	-0.146	-0.190	-0.230	-0.247	-0.278	-0.328	-0.378	-0.428	-0.478	-0.528

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX1	-0.5584	-1.1653	-1.3858	-0.0000	-6.3431	0.7815	2.0400	2.8300	2.9214
CX2	0.3510	0.4088	0.1083	-1.0037	-1.5744	0.2057	-0.2038	-0.3101	-0.4260
CX3	3.3591	0.6205	-1.4233	-1.0183	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX1	1.6678	1.5765	0.0525	3.0489	6.0053	0.0431	-4.8804	-1.3096	0.0427
CX2	-0.3975	-0.6417	-0.8884	-0.2695	-0.1566	0.4099	0.7914	-0.4505	-0.1001
CX3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CM	0.140	-0.087	0.103	-0.556	-0.116				



DATE 6-MAR-78 PROJECT NO P41C-W0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH PEX10-6 PT

TC-532 72 0.952 3.005 1449.4 889.3 513.1 1002.0 85.2

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 4T

ALFA CONFIG SURVEY ALFAS P PEAR X Y Z  
0.00 13 202 2044.3 11.967 3.500 -1.575

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.241	0.291	0.009	-0.194	-0.319	-0.238	0.042	-0.036	-0.085	-0.129	-0.170	-0.209	-0.233	-0.232	-0.223	-0.256	-0.294	-0.342	0.031
2	174.9	1.240	0.290	0.007	-0.193	-0.316	-0.238	0.038	-0.043	-0.092	-0.137	-0.178	-0.217	-0.244	-0.240	-0.233	-0.265	-0.305	-0.359	0.022
3	164.9	1.240	0.290	0.007	-0.193	-0.316	-0.238	0.038	-0.043	-0.092	-0.137	-0.178	-0.217	-0.244	-0.240	-0.233	-0.265	-0.305	-0.359	0.022
4	155.0	1.240	0.293	0.008	-0.199	-0.341	-0.251	0.037	-0.046	-0.095	-0.141	-0.181	-0.221	-0.247	-0.243	-0.236	-0.268	-0.312	-0.366	0.022
5	145.9	1.247	0.308	0.022	-0.197	-0.347	-0.254	0.045	-0.039	-0.090	-0.139	-0.180	-0.220	-0.249	-0.245	-0.237	-0.272	-0.321	-0.375	0.019
6	135.1	1.239	0.307	0.018	-0.192	-0.352	-0.263	0.046	-0.034	-0.086	-0.134	-0.175	-0.215	-0.244	-0.240	-0.232	-0.267	-0.316	-0.370	0.019
7	125.1	1.245	0.319	0.030	-0.192	-0.345	-0.256	0.047	-0.050	-0.102	-0.153	-0.195	-0.235	-0.262	-0.230	-0.250	-0.291	-0.328	-0.351	0.028
8	115.1	1.244	0.326	0.037	-0.177	-0.351	-0.258	0.050	-0.051	-0.109	-0.161	-0.204	-0.245	-0.271	-0.231	-0.260	-0.304	-0.355	-0.378	0.007
9	105.0	1.241	0.329	0.039	-0.177	-0.353	-0.264	0.029	-0.066	-0.127	-0.180	-0.225	-0.265	-0.287	-0.238	-0.261	-0.314	-0.332	-0.344	0.020
10	95.0	1.243	0.339	0.048	-0.170	-0.354	-0.264	0.028	-0.073	-0.141	-0.196	-0.243	-0.278	-0.293	-0.243	-0.263	-0.307	-0.318	-0.332	0.019
11	85.0	1.246	0.352	0.062	-0.157	-0.343	-0.253	0.028	-0.070	-0.139	-0.196	-0.243	-0.273	-0.282	-0.235	-0.250	-0.303	-0.287	-0.318	0.026
12	74.9	1.243	0.355	0.066	-0.154	-0.350	-0.257	0.018	-0.079	-0.155	-0.215	-0.263	-0.283	-0.284	-0.245	-0.278	-0.303	-0.353	-0.372	0.001
13	65.0	1.244	0.360	0.076	-0.145	-0.340	-0.214	0.007	-0.090	-0.172	-0.234	-0.286	-0.298	-0.270	-0.256	-0.257	-0.303	-0.353	-0.365	0.024
14	54.9	1.245	0.366	0.082	-0.139	-0.338	-0.149	0.004	-0.097	-0.185	-0.248	-0.303	-0.313	-0.264	-0.265	-0.265	-0.303	-0.353	-0.365	0.021
15	45.0	1.245	0.370	0.093	-0.126	-0.334	-0.063	0.003	-0.098	-0.193	-0.258	-0.313	-0.318	-0.264	-0.275	-0.275	-0.303	-0.353	-0.365	0.021
16	35.1	1.248	0.374	0.104	-0.115	-0.329	0.001	0.008	-0.100	-0.200	-0.265	-0.324	-0.324	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.007
17	25.1	1.241	0.366	0.097	-0.119	-0.329	0.028	0.008	-0.112	-0.215	-0.279	-0.347	-0.340	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.019
18	15.0	1.245	0.367	0.096	-0.115	-0.324	0.052	0.002	-0.113	-0.217	-0.281	-0.351	-0.341	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.017
19	5.0	1.244	0.363	0.093	-0.117	-0.322	0.065	0.003	-0.114	-0.218	-0.282	-0.351	-0.341	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.017
20	5.0	1.244	0.358	0.087	-0.119	-0.313	0.087	0.003	-0.114	-0.218	-0.279	-0.345	-0.345	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.017
21	15.0	1.247	0.353	0.082	-0.122	-0.304	0.095	0.003	-0.116	-0.221	-0.272	-0.345	-0.345	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.018
22	25.0	1.247	0.346	0.074	-0.127	-0.294	0.083	0.003	-0.116	-0.221	-0.272	-0.345	-0.345	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.018
23	35.0	1.244	0.338	0.066	-0.133	-0.288	0.063	0.003	-0.101	-0.193	-0.254	-0.315	-0.315	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.019
24	45.0	1.244	0.329	0.058	-0.141	-0.290	0.025	0.003	-0.093	-0.180	-0.240	-0.306	-0.306	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.019
25	54.9	1.247	0.320	0.047	-0.150	-0.293	0.038	0.006	-0.085	-0.187	-0.223	-0.277	-0.277	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.023
26	64.9	1.247	0.313	0.038	-0.159	-0.299	0.094	0.006	-0.079	-0.186	-0.210	-0.260	-0.260	-0.264	-0.288	-0.288	-0.303	-0.353	-0.365	0.021
27	74.9	1.245	0.304	0.032	-0.165	-0.294	0.148	0.008	-0.072	-0.183	-0.196	-0.243	-0.243	-0.250	-0.264	-0.264	-0.288	-0.303	-0.353	0.022
28	84.9	1.246	0.301	0.025	-0.172	-0.299	0.184	0.008	-0.065	-0.172	-0.184	-0.229	-0.229	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.021
29	95.0	1.247	0.296	0.019	-0.178	-0.300	0.210	0.020	-0.059	-0.173	-0.174	-0.218	-0.218	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.019
30	105.0	1.248	0.292	0.015	-0.183	-0.303	0.216	0.020	-0.055	-0.174	-0.174	-0.218	-0.218	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.018
31	115.0	1.248	0.288	0.010	-0.187	-0.310	0.238	0.020	-0.049	-0.185	-0.185	-0.229	-0.229	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.019
32	125.0	1.245	0.285	0.006	-0.192	-0.314	0.249	0.020	-0.045	-0.189	-0.189	-0.233	-0.233	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.019
33	134.9	1.247	0.283	0.003	-0.195	-0.315	0.258	0.020	-0.042	-0.194	-0.194	-0.237	-0.237	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.017
34	144.9	1.244	0.282	0.002	-0.197	-0.311	0.261	0.046	-0.039	-0.186	-0.186	-0.230	-0.230	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.017
35	154.9	1.245	0.282	0.001	-0.199	-0.313	0.264	0.041	-0.038	-0.187	-0.187	-0.230	-0.230	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.017
36	164.9	1.244	0.283	0.001	-0.200	-0.315	0.262	0.041	-0.037	-0.186	-0.186	-0.230	-0.230	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.019
37	174.9	1.243	0.285	0.002	-0.200	-0.323	0.254	0.040	-0.038	-0.187	-0.187	-0.230	-0.230	-0.243	-0.243	-0.250	-0.264	-0.288	-0.303	0.016

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX	-0.4917	-0.9845	-1.4773	-2.2654	-3.2322	-4.2990	-5.3658	-6.4326	-7.5000
CX	0.3067	0.3946	0.4825	0.5704	0.6583	0.7462	0.8341	0.9220	1.0100
CX	3.3316	0.5267	-1.4856	-1.0666	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	2.8930	2.8169	-0.1292	-1.1467	-2.2192	-3.2917	-4.3642	-5.4367	-6.5092
CX	-0.3019	-0.4637	-0.6255	-0.7873	-0.9491	-1.1109	-1.2727	-1.4345	-1.5963
CX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM CY CA CLM CLW CLX  
0.196 -0.052 0.097 -0.577 -0.076

DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARPCO AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6

TC-532 73 0.951 3.003 1459.1 815.2 515.7 1003.4 87.8

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY

0.00 13 203

PRAP 2044.4

11.967

3.500

-1.950

1.243 0.287 0.005-0.199-0.347-0.232

1.242 0.290 0.006-0.198-0.350-0.234

1.243 0.295 0.009-0.197-0.355-0.238

1.244 0.301 0.014-0.194-0.360-0.243

1.241 0.304 0.016-0.192-0.362-0.246

1.243 0.312 0.023-0.188-0.363-0.248

1.242 0.316 0.027-0.185-0.364-0.248

1.242 0.324 0.034-0.180-0.364-0.248

1.241 0.328 0.038-0.177-0.364-0.248

1.243 0.337 0.047-0.170-0.361-0.247

1.243 0.342 0.052-0.166-0.360-0.247

1.241 0.349 0.061-0.158-0.353-0.248

1.242 0.351 0.066-0.151-0.351-0.251

1.243 0.355 0.077-0.140-0.345-0.127

1.243 0.355 0.079-0.138-0.344-0.093

1.241 0.356 0.081-0.134-0.341-0.087

1.244 0.355 0.081-0.132-0.339-0.084

1.243 0.352 0.079-0.132-0.335-0.083

1.246 0.349 0.073-0.135-0.333-0.081

1.247 0.344 0.069-0.137-0.330-0.081

1.245 0.336 0.060-0.146-0.325-0.077

1.246 0.329 0.052-0.151-0.323-0.109

1.247 0.323 0.047-0.156-0.322-0.124

1.245 0.316 0.039-0.161-0.324-0.155

1.245 0.310 0.033-0.168-0.326-0.188

1.248 0.305 0.027-0.173-0.329-0.210

1.245 0.299 0.021-0.179-0.326-0.232

1.245 0.293 0.013-0.186-0.329-0.254

1.247 0.291 0.011-0.189-0.330-0.262

1.245 0.287 0.006-0.194-0.334-0.289

1.245 0.283 0.003-0.197-0.336-0.274

1.245 0.283 0.002-0.199-0.333-0.274

1.244 0.280-0.001-0.201-0.331-0.275

1.241 0.280-0.002-0.203-0.332-0.274

1.242 0.281-0.001-0.203-0.333-0.271

1.240 0.283 0.000-0.201-0.337-0.264

ORIFICE

X5 FT 0.0278 0.0555

CXK -0.4276 -0.8255

CYK 0.2465 0.1206

CAX 3.2854 0.4226

ORIFICE

X5 FT 0.2375 0.3053

CXK 1.9971 1.1579

CYK -0.2296 -0.2585

CAX 0.0000 0.0000

CN 0.103

CT -0.019

CA 0.088

CLM -0.325

CLM -0.034



DATE 8-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH HX10-6 PT

TC-332 74 0.951 2.997 1458.5 814.8 516.1 1005.0 88.9

DATE 2-16-78

AEDC PROPELSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY ALPHA5 PBAR X Y Z  
0.00 13 204 2044.5 13.487 3.500 -1.950

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	245	0.272	0.012	0.217	0.418	0.339	0.252	0.220	0.221	0.242	0.249	0.281	0.314	0.244	0.074	0.077	0.075	0.061	0.031	
2	-174.9	1.240	0.273	0.011	0.216	0.420	0.345	0.262	0.237	0.227	0.245	0.253	0.285	0.320	0.248	0.075	0.085	0.076	0.063	0.031
3	-164.9	1.240	0.278	0.010	0.216	0.420	0.351	0.271	0.236	0.236	0.250	0.261	0.294	0.330	0.210	0.076	0.087	0.077	0.065	0.032
4	-155.0	1.241	0.280	0.008	0.216	0.422	0.355	0.270	0.240	0.241	0.253	0.268	0.300	0.338	0.174	0.076	0.086	0.076	0.064	0.030
5	-144.9	1.240	0.289	0.001	0.211	0.422	0.363	0.279	0.249	0.253	0.258	0.273	0.316	0.359	0.101	0.075	0.086	0.076	0.065	0.031
6	-135.1	1.241	0.295	0.003	0.211	0.423	0.368	0.290	0.258	0.260	0.261	0.285	0.327	0.374	0.070	0.075	0.085	0.076	0.065	0.031
7	-125.0	1.244	0.304	0.010	0.209	0.423	0.374	0.300	0.270	0.269	0.265	0.294	0.342	0.392	0.037	0.078	0.086	0.077	0.065	0.032
8	-115.1	1.244	0.313	0.015	0.208	0.424	0.378	0.311	0.283	0.280	0.270	0.301	0.358	0.410	0.019	0.078	0.086	0.077	0.066	0.033
9	-105.0	1.243	0.323	0.024	0.201	0.423	0.385	0.321	0.297	0.293	0.276	0.320	0.377	0.424	0.001	0.080	0.086	0.079	0.067	0.033
10	-95.0	1.242	0.332	0.032	0.197	0.423	0.391	0.332	0.309	0.306	0.283	0.332	0.395	0.423	0.014	0.082	0.087	0.079	0.069	0.034
11	-85.0	1.242	0.343	0.042	0.190	0.425	0.401	0.345	0.324	0.318	0.293	0.350	0.421	0.394	0.024	0.082	0.087	0.080	0.068	0.035
12	-74.9	1.240	0.352	0.052	0.184	0.425	0.408	0.355	0.331	0.320	0.301	0.368	0.443	0.317	0.033	0.083	0.088	0.082	0.071	0.036
13	-65.0	1.243	0.364	0.063	0.179	0.424	0.413	0.365	0.333	0.320	0.309	0.381	0.463	0.238	0.041	0.086	0.091	0.085	0.073	0.039
14	-54.9	1.242	0.373	0.074	0.171	0.426	0.421	0.378	0.340	0.324	0.321	0.401	0.488	0.176	0.040	0.084	0.090	0.085	0.073	0.038
15	-45.0	1.243	0.380	0.081	0.168	0.425	0.427	0.386	0.345	0.324	0.328	0.415	0.500	0.143	0.042	0.085	0.092	0.087	0.075	0.040
16	-35.1	1.246	0.387	0.091	0.162	0.425	0.432	0.395	0.356	0.322	0.337	0.425	0.511	0.121	0.040	0.085	0.094	0.089	0.077	0.041
17	-25.1	1.245	0.390	0.098	0.159	0.425	0.438	0.400	0.360	0.321	0.341	0.434	0.520	0.117	0.034	0.083	0.093	0.089	0.077	0.042
18	-15.0	1.244	0.389	0.104	0.153	0.423	0.433	0.394	0.355	0.319	0.342	0.439	0.523	0.108	0.034	0.082	0.093	0.089	0.077	0.042
19	-5.0	1.247	0.388	0.103	0.153	0.423	0.433	0.393	0.351	0.315	0.342	0.440	0.525	0.110	0.035	0.083	0.095	0.091	0.079	0.043
20	5.0	1.246	0.382	0.086	0.156	0.423	0.431	0.393	0.347	0.312	0.339	0.435	0.522	0.119	0.034	0.084	0.095	0.091	0.079	0.043
21	15.0	1.246	0.376	0.080	0.160	0.423	0.431	0.392	0.347	0.310	0.333	0.429	0.515	0.133	0.033	0.083	0.095	0.091	0.080	0.043
22	25.0	1.248	0.365	0.078	0.167	0.423	0.428	0.391	0.341	0.308	0.319	0.410	0.497	0.174	0.029	0.085	0.096	0.091	0.079	0.043
23	35.0	1.248	0.356	0.069	0.175	0.422	0.418	0.377	0.339	0.305	0.307	0.393	0.479	0.231	0.026	0.084	0.096	0.091	0.079	0.043
24	45.0	1.246	0.344	0.058	0.178	0.420	0.405	0.362	0.316	0.298	0.291	0.370	0.450	0.298	0.026	0.087	0.097	0.091	0.078	0.042
25	54.9	1.249	0.336	0.049	0.183	0.420	0.399	0.348	0.312	0.298	0.284	0.350	0.431	0.366	0.017	0.086	0.097	0.090	0.078	0.042
26	64.9	1.246	0.324	0.039	0.188	0.419	0.390	0.335	0.307	0.289	0.273	0.338	0.407	0.409	0.001	0.086	0.096	0.088	0.076	0.040
27	74.9	1.248	0.314	0.029	0.194	0.419	0.382	0.323	0.298	0.283	0.264	0.317	0.384	0.422	0.085	0.095	0.087	0.075	0.039	
28	84.9	1.246	0.303	0.019	0.200	0.419	0.375	0.311	0.287	0.272	0.257	0.301	0.363	0.415	0.050	0.091	0.094	0.085	0.073	0.037
29	95.0	1.245	0.294	0.009	0.205	0.419	0.368	0.300	0.274	0.257	0.250	0.288	0.341	0.395	0.079	0.097	0.093	0.084	0.071	0.036
30	105.0	1.247	0.288	0.002	0.208	0.418	0.361	0.288	0.260	0.242	0.242	0.273	0.321	0.373	0.108	0.076	0.093	0.083	0.071	0.036
31	114.9	1.247	0.281	0.003	0.211	0.419	0.353	0.289	0.253	0.236	0.236	0.261	0.310	0.360	0.133	0.076	0.092	0.082	0.069	0.035
32	124.9	1.245	0.277	0.008	0.215	0.419	0.345	0.278	0.241	0.228	0.241	0.251	0.297	0.343	0.175	0.077	0.091	0.080	0.068	0.033
33	134.9	1.245	0.273	0.012	0.218	0.420	0.349	0.277	0.233	0.224	0.240	0.250	0.288	0.331	0.213	0.077	0.090	0.080	0.067	0.033
34	144.9	1.245	0.272	0.012	0.218	0.420	0.349	0.277	0.233	0.224	0.240	0.250	0.288	0.331	0.213	0.077	0.090	0.080	0.067	0.033
35	154.9	1.243	0.270	0.014	0.218	0.420	0.349	0.277	0.233	0.224	0.240	0.250	0.288	0.331	0.213	0.077	0.089	0.078	0.066	0.032
36	164.9	1.243	0.270	0.014	0.218	0.420	0.349	0.277	0.233	0.224	0.240	0.250	0.288	0.331	0.213	0.077	0.089	0.078	0.066	0.032
37	174.9	1.247	0.271	0.015	0.219	0.421	0.347	0.269	0.225	0.222	0.242	0.250	0.282	0.319	0.264	0.076	0.088	0.078	0.066	0.031

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	-0.7716	-1.2616	-0.8715	0.0665	1.4404	2.1654	2.3024	1.6076	1.5525
CYX	0.1377	0.0629	-0.0205	-0.0703	-0.1646	-0.0853	-0.1919	-0.4385	-0.3200
CAX	3.3417	0.4141	-1.7522	-1.3964	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2175	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	2.9941	3.9469	-3.2311	-4.3562	-0.1555	-0.1376	-0.2260	-0.2312	-0.1901
CYX	-0.2912	-0.2447	0.1830	0.2714	-0.0227	-0.1345	-0.1189	-0.1043	-0.0722
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 0.115 CV -0.032 CA 0.077 CLM CLM 1.00

DATE 8-MAR-78 PROJECT NO PAIC-WOC

AERO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REA10-6 PT

TC-532 60 0.952 3.001 1439.8 803.6 509.9 1000.3

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA	CONFIG	SURVEY	ALFAS	PRAR	Y	Z															
2.00	13	201	2.01	2043.2	11.967	3.500	-1.300														
PRT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
7	-174.9	1.244	0.355	0.076	-0.128	-0.226	-0.088	0.020	-0.030	-0.074	-0.117	-0.154	-0.177	-0.153	-0.160	-0.199	-0.233	-0.272	-0.332	0.023	
8	-164.9	1.244	0.361	0.079	-0.128	-0.230	-0.094	0.022	-0.028	-0.072	-0.115	-0.155	-0.180	-0.154	-0.151	-0.192	-0.234	-0.275	-0.338	0.024	
9	-155.0	1.245	0.369	0.084	-0.125	-0.234	-0.095	0.021	-0.031	-0.076	-0.122	-0.161	-0.190	-0.160	-0.154	-0.198	-0.239	-0.279	-0.331	0.024	
11	-144.9	1.242	0.373	0.086	-0.125	-0.239	-0.093	0.018	-0.041	-0.087	-0.133	-0.178	-0.208	-0.159	-0.166	-0.208	-0.255	-0.318	-0.009	0.020	
12	-135.1	1.243	0.385	0.101	-0.111	-0.234	-0.090	0.021	-0.038	-0.087	-0.136	-0.178	-0.208	-0.164	-0.165	-0.212	-0.257	-0.265	-0.311	0.024	
13	-125.0	1.243	0.389	0.105	-0.108	-0.235	-0.075	0.021	-0.040	-0.092	-0.143	-0.186	-0.215	-0.166	-0.170	-0.221	-0.266	-0.269	-0.308	0.024	
14	-115.1	1.244	0.394	0.111	-0.104	-0.236	-0.058	0.015	-0.051	-0.109	-0.162	-0.207	-0.229	-0.164	-0.187	-0.243	-0.262	-0.263	-0.317	0.021	
15	-105.0	1.246	0.405	0.126	-0.089	-0.230	-0.026	0.025	-0.047	-0.110	-0.168	-0.214	-0.232	-0.168	-0.156	-0.208	-0.236	-0.239	-0.007	0.023	
16	-95.0	1.243	0.403	0.129	-0.086	-0.228	-0.010	0.017	-0.059	-0.127	-0.186	-0.234	-0.240	-0.169	-0.208	-0.240	-0.260	-0.260	0.014	0.022	
17	-85.0	1.243	0.406	0.138	-0.077	-0.216	0.008	0.018	-0.085	-0.138	-0.200	-0.251	-0.242	-0.169	-0.222	-0.241	-0.260	-0.279	0.018	0.023	
18	-74.9	1.244	0.407	0.145	-0.069	-0.198	0.024	0.018	-0.073	-0.154	-0.218	-0.269	-0.240	-0.173	-0.243	-0.240	-0.260	-0.279	0.018	0.023	
19	-65.0	1.241	0.406	0.148	-0.060	-0.189	0.049	0.020	-0.080	-0.174	-0.240	-0.288	-0.237	-0.177	-0.233	-0.240	-0.260	-0.279	0.018	0.024	
20	-54.9	1.244	0.403	0.149	-0.054	-0.182	0.082	0.021	-0.093	-0.188	-0.256	-0.290	-0.232	-0.180	-0.208	-0.240	-0.260	-0.279	0.015	0.025	
21	-45.0	1.244	0.398	0.150	-0.045	-0.134	0.118	0.018	-0.107	-0.205	-0.274	-0.281	-0.225	-0.185	-0.208	-0.240	-0.260	-0.279	0.015	0.026	
22	-35.1	1.243	0.391	0.149	-0.045	-0.118	0.152	0.033	-0.120	-0.218	-0.287	-0.269	-0.221	-0.189	-0.208	-0.240	-0.260	-0.279	0.013	0.026	
23	-25.1	1.242	0.381	0.146	-0.043	-0.100	0.179	0.033	-0.136	-0.229	-0.297	-0.240	-0.214	-0.193	-0.208	-0.240	-0.260	-0.279	0.011	0.026	
24	-15.0	1.242	0.373	0.141	-0.041	-0.085	0.196	0.034	-0.163	-0.239	-0.309	-0.199	-0.204	-0.180	-0.208	-0.240	-0.260	-0.279	0.011	0.027	
26	-5.0	1.244	0.361	0.132	-0.043	-0.076	0.164	0.015	-0.189	-0.254	-0.324	-0.146	-0.192	-0.204	-0.208	-0.240	-0.260	-0.279	0.013	0.030	
27	5.0	1.246	0.352	0.123	-0.048	-0.073	0.137	0.014	-0.187	-0.252	-0.315	-0.154	-0.178	-0.201	-0.208	-0.240	-0.260	-0.279	0.014	0.032	
28	15.0	1.245	0.341	0.111	-0.050	-0.075	0.127	0.014	-0.186	-0.250	-0.303	-0.178	-0.164	-0.180	-0.208	-0.240	-0.260	-0.279	0.012	0.032	
29	25.0	1.245	0.332	0.101	-0.064	-0.080	0.110	0.013	-0.176	-0.243	-0.284	-0.193	-0.152	-0.185	-0.208	-0.240	-0.260	-0.279	0.010	0.033	
30	35.0	1.245	0.323	0.087	-0.073	-0.092	0.110	0.013	-0.176	-0.243	-0.284	-0.193	-0.152	-0.185	-0.208	-0.240	-0.260	-0.279	0.010	0.033	
31	45.0	1.244	0.315	0.075	-0.085	-0.108	0.064	0.011	-0.133	-0.208	-0.241	-0.198	-0.132	-0.160	-0.208	-0.240	-0.260	-0.279	0.013	0.030	
32	54.9	1.242	0.309	0.065	-0.093	-0.123	0.039	0.007	-0.112	-0.188	-0.223	-0.199	-0.127	-0.153	-0.208	-0.240	-0.260	-0.279	0.011	0.029	
33	64.9	1.244	0.306	0.058	-0.104	-0.136	0.024	0.009	-0.091	-0.168	-0.204	-0.199	-0.125	-0.146	-0.208	-0.240	-0.260	-0.279	0.002	0.028	
34	74.9	1.242	0.303	0.054	-0.111	-0.146	0.014	0.010	-0.079	-0.150	-0.190	-0.196	-0.124	-0.141	-0.208	-0.240	-0.260	-0.279	0.002	0.028	
35	84.9	1.245	0.303	0.048	-0.121	-0.159	0.000	0.020	-0.063	-0.131	-0.173	-0.193	-0.124	-0.138	-0.208	-0.240	-0.260	-0.279	0.004	0.023	
36	95.0	1.240	0.302	0.047	-0.128	-0.163	0.026	0.032	-0.051	-0.115	-0.158	-0.185	-0.130	-0.131	-0.199	-0.208	-0.240	-0.260	0.014	0.023	
37	105.0	1.240	0.303	0.042	-0.134	-0.172	0.044	0.031	-0.043	-0.104	-0.147	-0.179	-0.138	-0.129	-0.185	-0.208	-0.240	-0.260	0.018	0.018	
38	114.9	1.243	0.307	0.042	-0.139	-0.181	0.051	0.031	-0.037	-0.094	-0.137	-0.171	-0.142	-0.128	-0.170	-0.208	-0.240	-0.260	0.018	0.018	
39	125.0	1.241	0.311	0.044	-0.141	-0.192	0.051	0.032	-0.034	-0.087	-0.130	-0.165	-0.145	-0.127	-0.160	-0.208	-0.240	-0.260	0.016	0.018	
40	134.9	1.241	0.316	0.046	-0.143	-0.204	0.054	0.031	-0.031	-0.081	-0.124	-0.159	-0.149	-0.128	-0.161	-0.208	-0.240	-0.260	0.019	0.019	
41	144.9	1.239	0.319	0.048	-0.148	-0.212	0.060	0.031	-0.031	-0.077	-0.120	-0.157	-0.153	-0.130	-0.151	-0.208	-0.240	-0.260	0.018	0.018	
42	154.9	1.242	0.327	0.052	-0.143	-0.218	0.067	0.032	-0.028	-0.078	-0.116	-0.153	-0.156	-0.132	-0.150	-0.208	-0.240	-0.260	0.019	0.019	
43	164.8	1.243	0.335	0.055	-0.148	-0.224	0.079	0.031	-0.028	-0.078	-0.116	-0.153	-0.156	-0.132	-0.150	-0.208	-0.240	-0.260	0.019	0.019	
44	174.9	1.242	0.341	0.061	-0.141	-0.227	0.086	0.031	-0.028	-0.078	-0.116	-0.153	-0.156	-0.132	-0.150	-0.208	-0.240	-0.260	0.016	0.020	
ORIFICE	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498												
CW	-0.0674	-0.0674	-1.2145	-2.3125	-3.3973	-4.4815	-5.5657	-6.6500	-7.7342												
CY	0.6879	1.0040	0.6406	-0.7919	0.2401	0.0997	0.0848	0.0848	0.0848												
CAX	3.6446	1.1369	-0.8444	-0.5635	0.0000	0.0000	0.0000	0.0000	0.0000												
ORIFICE	11	12	13	14	15	16	17	18	19												
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995												
CW	0.9136	-1.5042	0.7482	4.4563	5.8465	-1.5041	-4.0203	-0.5624	-0.1536												
CY	-1.0042	-1.7564	-0.6125	-0.2927	0.1926	0.5103	0.9426	0.3947	-0.0027												
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000												

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNA	-0.0877	-0.6744	-1.2745	-2.3125	-3.8973	-5.3910	-6.8197	-8.1339	-9.3518
CYX	0.6879	1.0040	0.6406	-0.7919	-2.4001	-4.0997	-5.8048	-7.5099	-9.2150
CAX	3.6446	1.1368	-0.8844	-0.5635	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNA	0.9136	0.1237	0.7482	4.4563	5.4653	-1.5041	-0.4203	-0.5624	-0.1536
CYX	-1.0042	-1.7564	-0.6125	-0.0297	0.1926	0.5103	0.9426	0.3947	-0.0027
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CH 0.166 0.011 0.153 -0.433 0.117



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE110-B PT 1431.9

TC-532 63 0.956 2.997 797.9 507.8 1000.2

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

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DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

AROLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT

TC-532 65 0.953 3.003 1429.5 796.6 506.9 998.7 80.0

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 204 2.01 ALFAS PRAR 2043.2 13.467 3.500 -1.950

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.245	0.317	0.035	-0.177	-0.377	-0.301	-0.207	-0.172	-0.171	-0.181	-0.200	-0.232	-0.272	0.008	0.067	0.059	0.059	0.059	0.022
3	-165.0	1.245	0.320	0.037	-0.177	-0.379	-0.310	-0.215	-0.178	-0.178	-0.184	-0.205	-0.238	-0.280	0.015	0.070	0.066	0.061	0.053	0.022
4	-155.0	1.244	0.326	0.039	-0.176	-0.380	-0.313	-0.214	-0.183	-0.180	-0.188	-0.209	-0.244	-0.287	0.019	0.070	0.067	0.061	0.053	0.023
5	-144.9	1.244	0.330	0.043	-0.174	-0.381	-0.318	-0.226	-0.191	-0.188	-0.195	-0.218	-0.254	-0.296	0.022	0.070	0.067	0.060	0.053	0.022
6	-135.1	1.247	0.338	0.048	-0.172	-0.380	-0.321	-0.224	-0.190	-0.191	-0.200	-0.225	-0.265	-0.302	0.031	0.071	0.068	0.062	0.054	0.024
7	-125.1	1.246	0.344	0.052	-0.169	-0.380	-0.323	-0.234	-0.207	-0.207	-0.215	-0.239	-0.279	-0.304	0.038	0.071	0.068	0.062	0.055	0.024
8	-115.1	1.245	0.350	0.057	-0.165	-0.380	-0.329	-0.244	-0.218	-0.208	-0.216	-0.247	-0.297	-0.293	0.045	0.072	0.068	0.062	0.055	0.024
9	-104.9	1.245	0.359	0.066	-0.162	-0.381	-0.339	-0.264	-0.236	-0.225	-0.231	-0.269	-0.327	-0.234	0.053	0.072	0.069	0.061	0.055	0.024
10	-95.0	1.245	0.366	0.074	-0.157	-0.381	-0.345	-0.272	-0.248	-0.228	-0.242	-0.286	-0.350	-0.159	0.057	0.073	0.070	0.065	0.057	0.025
11	-85.0	1.247	0.373	0.079	-0.154	-0.382	-0.350	-0.282	-0.251	-0.225	-0.251	-0.299	-0.367	-0.112	0.061	0.074	0.072	0.066	0.058	0.026
12	-74.8	1.247	0.378	0.086	-0.150	-0.383	-0.356	-0.291	-0.253	-0.221	-0.261	-0.316	-0.388	-0.071	0.063	0.075	0.074	0.069	0.060	0.027
13	-65.0	1.246	0.383	0.093	-0.147	-0.385	-0.363	-0.301	-0.260	-0.233	-0.270	-0.334	-0.409	-0.040	0.064	0.076	0.075	0.070	0.061	0.027
14	-54.9	1.246	0.386	0.098	-0.144	-0.386	-0.366	-0.305	-0.270	-0.238	-0.275	-0.340	-0.423	-0.030	0.064	0.076	0.076	0.072	0.061	0.028
15	-45.0	1.247	0.391	0.108	-0.138	-0.387	-0.371	-0.321	-0.295	-0.241	-0.282	-0.371	-0.440	-0.014	0.064	0.079	0.080	0.075	0.064	0.030
16	-35.1	1.246	0.391	0.113	-0.136	-0.389	-0.377	-0.320	-0.315	-0.245	-0.288	-0.385	-0.445	-0.008	0.064	0.080	0.082	0.077	0.065	0.030
17	-25.1	1.246	0.390	0.112	-0.136	-0.392	-0.381	-0.329	-0.330	-0.249	-0.294	-0.394	-0.446	-0.009	0.063	0.081	0.083	0.078	0.066	0.031
18	-15.0	1.246	0.387	0.110	-0.139	-0.397	-0.388	-0.340	-0.338	-0.253	-0.299	-0.403	-0.444	-0.009	0.061	0.081	0.084	0.079	0.066	0.031
19	-5.0	1.247	0.384	0.106	-0.145	-0.399	-0.393	-0.338	-0.335	-0.253	-0.299	-0.407	-0.441	-0.010	0.060	0.082	0.086	0.081	0.067	0.031
20	5.0	1.246	0.377	0.101	-0.146	-0.403	-0.395	-0.346	-0.328	-0.245	-0.296	-0.406	-0.439	-0.012	0.059	0.082	0.086	0.081	0.067	0.031
21	15.0	1.246	0.370	0.095	-0.151	-0.405	-0.395	-0.345	-0.322	-0.245	-0.291	-0.401	-0.440	-0.015	0.057	0.082	0.086	0.081	0.067	0.032
22	24.9	1.247	0.361	0.087	-0.156	-0.406	-0.391	-0.344	-0.316	-0.238	-0.283	-0.392	-0.443	-0.022	0.055	0.082	0.087	0.080	0.068	0.031
23	35.0	1.246	0.351	0.077	-0.161	-0.406	-0.384	-0.331	-0.307	-0.225	-0.272	-0.377	-0.440	-0.023	0.053	0.083	0.087	0.081	0.067	0.031
24	45.0	1.246	0.340	0.065	-0.168	-0.406	-0.376	-0.327	-0.290	-0.213	-0.259	-0.359	-0.429	-0.055	0.049	0.081	0.085	0.080	0.067	0.030
25	54.9	1.247	0.329	0.053	-0.175	-0.405	-0.366	-0.309	-0.264	-0.204	-0.245	-0.336	-0.409	-0.092	0.044	0.080	0.083	0.078	0.064	0.028
26	64.9	1.246	0.322	0.045	-0.178	-0.401	-0.355	-0.298	-0.242	-0.194	-0.233	-0.313	-0.386	-0.134	0.042	0.080	0.083	0.076	0.064	0.028
27	74.9	1.248	0.317	0.038	-0.181	-0.398	-0.346	-0.283	-0.224	-0.191	-0.223	-0.293	-0.364	-0.191	0.033	0.081	0.082	0.075	0.063	0.027
28	84.9	1.245	0.310	0.033	-0.183	-0.395	-0.338	-0.270	-0.211	-0.185	-0.212	-0.275	-0.342	-0.241	0.021	0.080	0.080	0.073	0.061	0.026
29	95.0	1.246	0.305	0.028	-0.185	-0.393	-0.331	-0.258	-0.203	-0.183	-0.203	-0.258	-0.322	-0.275	0.006	0.080	0.078	0.071	0.060	0.025
30	105.0	1.247	0.303	0.027	-0.185	-0.390	-0.324	-0.256	-0.198	-0.181	-0.195	-0.242	-0.304	-0.296	0.000	0.080	0.078	0.070	0.059	0.024
31	115.0	1.246	0.301	0.023	-0.186	-0.390	-0.321	-0.246	-0.194	-0.181	-0.191	-0.232	-0.292	-0.304	0.015	0.078	0.075	0.067	0.057	0.023
32	125.0	1.246	0.301	0.022	-0.187	-0.387	-0.316	-0.236	-0.186	-0.170	-0.184	-0.218	-0.271	-0.304	0.018	0.076	0.072	0.065	0.055	0.022
33	134.9	1.244	0.299	0.021	-0.186	-0.386	-0.314	-0.235	-0.180	-0.170	-0.181	-0.211	-0.260	-0.299	0.009	0.073	0.070	0.063	0.054	0.021
34	144.9	1.245	0.301	0.022	-0.187	-0.386	-0.312	-0.236	-0.177	-0.173	-0.178	-0.206	-0.250	-0.293	0.006	0.072	0.070	0.062	0.053	0.021
35	154.9	1.246	0.304	0.024	-0.186	-0.385	-0.310	-0.225	-0.174	-0.171	-0.177	-0.202	-0.241	-0.285	0.003	0.071	0.069	0.061	0.052	0.021
36	164.9	1.244	0.305	0.025	-0.185	-0.385	-0.310	-0.225	-0.175	-0.171	-0.178	-0.200	-0.237	-0.281	0.005	0.070	0.066	0.060	0.051	0.020
37	174.9	1.246	0.311	0.028	-0.183	-0.384	-0.310	-0.224	-0.175	-0.173	-0.179	-0.200	-0.235	-0.279	0.009	0.070	0.067	0.060	0.052	0.021

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0378	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.4406	-0.8240	-0.5244	0.3060	1.3388	2.0131	2.4171	1.1409	1.8610
CYK	0.4029	0.5226	0.4377	-0.2433	-0.1120	-0.0032	-0.4525	-0.5524	-0.5498
CAX	3.5346	0.7365	-1.5113	-1.2906	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	3.5999	3.5845	-5.1463	-0.9491	-0.1925	-0.3150	-0.3311	-0.2505	-0.1610
CYK	-0.3475	-0.2875	1.0930	0.6928	-0.0892	-0.1197	-0.0850	-0.0453	0.0078
CAX	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 1 1.02 CLM CLM CLM





DATE 6-14-78 PROJECT NO P41C-W0C

ARO, INC.

AZDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT

TC-532 56 0.951 2.998 1437.1 802.9 508.5 999.1 82.5

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY

5.00 13 202

2043.0 11.967 3.500 -1.575

PMT DPMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.244 0.440 0.166-0.035-0.138 0.005 0.068 0.036 0.013-0.006-0.014-0.031-0.053-0.087-0.130-0.185-0.229-0.135-0.022

1.243 0.447 0.169-0.033-0.139 0.004 0.068 0.037 0.014-0.006-0.014-0.030-0.051-0.081-0.125-0.178-0.225-0.142-0.020

1.245 0.459 0.181-0.023-0.136 0.008 0.068 0.037 0.011-0.010-0.016-0.032-0.052-0.083-0.127-0.180-0.231-0.116-0.012

1.243 0.465 0.188-0.017-0.133 0.013 0.069 0.036 0.008-0.014-0.019-0.034-0.054-0.085-0.132-0.186-0.240-0.100-0.009

1.246 0.470 0.197-0.008-0.127 0.026 0.071 0.035 0.006-0.018-0.021-0.038-0.056-0.087-0.138-0.195-0.250-0.083-0.005

1.246 0.471 0.204-0.001-0.114 0.038 0.069 0.032-0.001-0.027-0.037-0.041-0.062-0.098-0.152-0.212-0.266-0.068-0.004

1.246 0.471 0.207 0.005-0.111 0.044 0.069 0.031-0.008-0.032-0.030-0.048-0.064-0.101-0.162-0.226-0.274-0.052-0.002

1.246 0.470 0.208 0.009-0.103 0.050 0.070 0.030-0.009-0.038-0.031-0.043-0.068-0.108-0.177-0.245-0.276-0.044-0.002

1.245 0.461 0.207 0.015-0.090 0.052 0.071 0.027-0.019-0.050-0.036-0.052-0.075-0.124-0.204-0.284-0.250-0.034-0.003

1.244 0.451 0.205 0.018-0.080 0.056 0.072 0.026-0.025-0.059-0.038-0.055-0.080-0.135-0.226-0.311-0.210-0.031-0.005

1.245 0.439 0.201 0.021-0.070 0.063 0.063 0.023-0.034-0.071-0.040-0.051-0.086-0.150-0.253-0.345-0.174-0.033-0.008

1.248 0.429 0.199 0.026-0.057 0.074 0.064 0.020-0.042-0.079-0.041-0.061-0.090-0.165-0.282-0.379-0.144-0.031-0.008

1.247 0.415 0.193 0.027-0.046 0.087 0.094 0.016-0.050-0.086-0.043-0.063-0.093-0.183-0.311-0.407-0.121-0.073-0.008

1.248 0.400 0.186 0.028-0.035 0.101 0.094 0.010-0.060-0.095-0.042-0.065-0.098-0.203-0.343-0.421-0.108-0.030-0.010

1.243 0.380 0.173 0.026-0.024 0.118 0.094-0.001-0.071-0.103-0.039-0.065-0.103-0.223-0.380-0.475-0.092-0.039-0.010

1.245 0.365 0.162 0.027-0.015 0.130 0.094-0.015-0.084-0.111-0.037-0.068-0.107-0.249-0.408-0.510-0.088-0.033-0.013

1.245 0.352 0.151 0.019-0.009 0.137 0.084-0.029-0.097-0.113-0.033-0.068-0.110-0.270-0.425-0.530-0.082-0.036-0.013

1.245 0.340 0.141 0.014-0.007 0.135 0.075-0.038-0.099-0.105-0.034-0.069-0.110-0.270-0.425-0.530-0.082-0.036-0.013

1.245 0.332 0.132 0.010-0.007 0.130 0.074-0.043-0.095-0.096-0.036-0.069-0.110-0.270-0.421-0.530-0.082-0.036-0.013

1.245 0.320 0.121 0.002-0.011 0.120 0.064-0.043-0.085-0.083-0.037-0.068-0.109-0.268-0.410-0.510-0.088-0.036-0.019

1.243 0.311 0.108-0.008-0.017 0.109 0.063-0.035-0.072-0.069-0.036-0.063-0.104-0.251-0.392-0.502-0.097-0.033-0.021

1.242 0.304 0.096-0.018-0.024 0.100 0.063-0.020-0.075-0.054-0.020-0.055-0.096-0.228-0.363-0.475-0.103-0.057-0.020

1.239 0.298 0.086-0.039-0.034 0.091 0.064-0.007-0.043-0.040-0.037-0.051-0.090-0.208-0.336-0.448-0.118-0.071-0.025

1.240 0.298 0.081-0.037-0.041 0.085 0.077 0.006-0.028-0.032-0.033-0.048-0.084-0.185-0.312-0.443-0.552-0.082-0.031

1.241 0.299 0.077-0.043-0.049 0.080 0.078 0.018-0.017-0.023-0.018-0.048-0.078-0.171-0.286-0.388-0.144-0.092-0.034

1.240 0.301 0.074-0.032-0.059 0.075 0.090 0.028-0.007-0.016-0.016-0.036-0.074-0.155-0.260-0.339-0.160-0.103-0.039

1.240 0.305 0.072-0.042-0.069 0.058 0.090 0.035 0.002-0.010-0.014-0.038-0.069-0.140-0.235-0.319-0.182-0.118-0.045

1.238 0.312 0.073-0.048-0.076 0.036 0.091 0.041 0.009-0.006-0.012-0.034-0.065-0.128-0.213-0.296-0.202-0.131-0.050

1.238 0.321 0.076-0.035-0.088 0.037 0.090 0.042 0.012-0.005-0.014-0.034-0.064-0.118-0.196-0.274-0.228-0.147-0.057

1.237 0.331 0.080-0.027-0.097 0.016 0.091 0.042 0.014-0.003-0.013-0.033-0.061-0.111-0.181-0.257-0.240-0.159-0.056

1.236 0.344 0.087-0.078-0.108 0.006 0.089 0.041 0.015-0.002-0.013-0.033-0.060-0.103-0.169-0.240-0.248-0.158-0.056

1.237 0.362 0.099-0.075-0.121 0.000 0.079 0.041 0.017-0.002-0.013-0.032-0.057-0.091-0.155-0.221-0.248-0.158-0.052

1.238 0.373 0.107-0.073-0.127-0.002 0.079 0.040 0.018-0.001-0.013-0.031-0.056-0.094-0.147-0.238-0.244-0.157-0.047

1.241 0.394 0.122-0.065-0.136-0.002 0.071 0.040 0.017-0.001-0.012-0.031-0.053-0.087-0.137-0.195-0.236-0.156-0.041

1.237 0.402 0.130-0.061-0.140-0.003 0.071 0.038 0.017-0.001-0.013-0.033-0.054-0.088-0.133-0.199-0.232-0.158-0.038

1.242 0.421 0.142-0.053-0.142-0.001 0.070 0.037 0.016-0.003-0.013-0.030-0.052-0.083-0.128-0.182-0.227-0.153-0.031

ORIFICE

2 3 4 5 6 7 8 9 10

0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

0.6138 0.1846 -0.0370 -2.0626 -2.0327 -0.1125 1.0485 1.6030 1.4526

0.5723 1.5386 1.2021 -0.1575 0.2480 -0.0661 -0.0313 -0.3875 -0.7731

3.9449 1.7297 -0.1889 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE

11 12 13 14 15 16 17 18 19

0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

0.3639 0.5704 0.8978 2.7997 4.6060 1.5194 -2.7423 -1.6802 -0.2281

-0.3169 -0.2482 0.1163 0.1283 1.3283 0.2569 1.3823 0.7104 0.0000

0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CM 70 CY 0.1.. CA 0.06 CLM -0.241 CLM 0.166

DATE 6-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDT AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6

YC-332 57 0.951 2.998 1436.4 803.0 508.0

PT 998.4 82.3

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY 203

5.00 13

PRAP 2043.0

X 11.967

Y 3.500

Z -1.950

Y1

Y2

Y3

Y4

Y5

Y6

Y7

Y8

Y9

Y10

Y11

Y12

Y13

Y14

Y15

Y16

Y17

Y18

Y19

Y20

Y21

Y22

Y23

Y24

Y25

Y26

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Y40

Y41

Y42

Y43

Y44

Y45

Y46

Y47

Y48

Y49

Y50

ORIFICE

X5 PT

CW

CY

CAX

ORIFICE

X5 PT

CW

CY

CAX

CW

CY

CAX

CW

CY

CAX

CW

CY

CAX



DATE 6-MAR-78 PROJECT NO P41C-W0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 58 0.949

PT 1440.4

P 807.2

Q 508.4

VI 997.0

IT 82.9

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG 13

204

PRAR 2043.0

X 13.467

Y 3.500

Z -1.950

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.239	0.378	0.095	-0.120	-0.337	-0.272	-0.040	-0.053	-0.060	-0.079	-0.130	-0.168	-0.110	-0.008	0.020	0.025	0.034	0.033	0.010
3	-164.9	1.244	0.390	0.104	-0.114	-0.337	-0.231	-0.055	-0.056	-0.060	-0.076	-0.118	-0.168	-0.119	0.004	0.026	0.035	0.040	0.041	0.016
4	-153.0	1.246	0.395	0.106	-0.113	-0.336	-0.234	-0.055	-0.058	-0.064	-0.076	-0.120	-0.170	-0.138	0.007	0.027	0.036	0.041	0.041	0.016
5	-144.9	1.244	0.407	0.120	-0.102	-0.327	-0.238	-0.088	-0.066	-0.076	-0.079	-0.116	-0.174	-0.200	-0.015	0.025	0.036	0.042	0.043	0.019
6	-135.1	1.244	0.411	0.122	-0.102	-0.331	-0.242	-0.093	-0.072	-0.072	-0.082	-0.133	-0.190	-0.094	0.012	0.031	0.039	0.044	0.045	0.020
7	-125.0	1.243	0.415	0.126	-0.099	-0.329	-0.246	-0.103	-0.081	-0.077	-0.087	-0.143	-0.202	-0.079	0.016	0.031	0.040	0.044	0.044	0.019
8	-115.1	1.243	0.419	0.131	-0.096	-0.329	-0.247	-0.115	-0.089	-0.083	-0.094	-0.156	-0.215	-0.059	0.015	0.031	0.040	0.043	0.044	0.019
9	-105.0	1.242	0.421	0.137	-0.092	-0.329	-0.251	-0.143	-0.102	-0.099	-0.103	-0.169	-0.240	-0.080	0.005	0.027	0.038	0.042	0.042	0.017
10	-95.0	1.244	0.425	0.142	-0.090	-0.328	-0.252	-0.150	-0.104	-0.097	-0.106	-0.179	-0.249	-0.053	0.013	0.031	0.041	0.045	0.044	0.019
11	-85.0	1.242	0.425	0.144	-0.088	-0.329	-0.251	-0.153	-0.111	-0.103	-0.116	-0.199	-0.274	-0.040	0.012	0.031	0.041	0.045	0.044	0.018
12	-75.0	1.244	0.425	0.143	-0.088	-0.332	-0.270	-0.169	-0.115	-0.103	-0.127	-0.216	-0.291	-0.029	0.013	0.032	0.042	0.047	0.045	0.019
13	-64.9	1.246	0.423	0.144	-0.089	-0.336	-0.282	-0.195	-0.119	-0.104	-0.139	-0.235	-0.301	-0.026	0.013	0.032	0.043	0.047	0.045	0.018
14	-54.9	1.245	0.419	0.142	-0.091	-0.340	-0.293	-0.208	-0.125	-0.105	-0.152	-0.256	-0.311	-0.024	0.012	0.032	0.044	0.048	0.045	0.017
15	-45.1	1.242	0.410	0.139	-0.096	-0.348	-0.307	-0.228	-0.129	-0.106	-0.174	-0.285	-0.368	-0.021	0.011	0.034	0.046	0.049	0.046	0.016
16	-35.1	1.243	0.405	0.137	-0.097	-0.351	-0.310	-0.228	-0.129	-0.103	-0.185	-0.295	-0.374	-0.017	0.014	0.037	0.049	0.052	0.048	0.019
17	-25.1	1.241	0.396	0.133	-0.103	-0.356	-0.314	-0.235	-0.107	-0.107	-0.195	-0.306	-0.370	-0.020	0.013	0.037	0.050	0.053	0.048	0.018
18	-15.0	1.243	0.387	0.126	-0.110	-0.364	-0.314	-0.248	-0.080	-0.114	-0.205	-0.315	-0.377	-0.026	0.010	0.037	0.051	0.054	0.048	0.018
19	-5.0	1.244	0.378	0.119	-0.117	-0.369	-0.310	-0.246	-0.059	-0.115	-0.211	-0.318	-0.377	-0.025	0.012	0.039	0.053	0.056	0.049	0.019
20	5.0	1.244	0.368	0.110	-0.124	-0.372	-0.308	-0.244	-0.045	-0.116	-0.212	-0.316	-0.374	-0.025	0.013	0.041	0.055	0.058	0.051	0.021
21	15.0	1.247	0.359	0.099	-0.130	-0.377	-0.306	-0.240	-0.041	-0.116	-0.211	-0.314	-0.370	-0.030	0.011	0.041	0.055	0.058	0.051	0.020
22	25.0	1.244	0.347	0.088	-0.141	-0.379	-0.301	-0.244	-0.039	-0.113	-0.206	-0.306	-0.374	-0.037	0.009	0.040	0.054	0.058	0.051	0.019
23	35.0	1.246	0.328	0.075	-0.149	-0.378	-0.294	-0.225	-0.038	-0.109	-0.195	-0.292	-0.373	-0.047	0.005	0.039	0.054	0.058	0.051	0.019
24	45.0	1.246	0.328	0.065	-0.153	-0.374	-0.285	-0.180	-0.035	-0.097	-0.182	-0.276	-0.373	-0.054	0.003	0.037	0.053	0.056	0.051	0.019
25	54.9	1.245	0.321	0.059	-0.156	-0.372	-0.280	-0.151	-0.034	-0.092	-0.174	-0.264	-0.374	-0.064	0.002	0.034	0.050	0.055	0.049	0.018
26	64.9	1.242	0.315	0.052	-0.159	-0.368	-0.272	-0.119	-0.035	-0.088	-0.162	-0.249	-0.370	-0.074	0.002	0.030	0.047	0.051	0.046	0.015
27	74.9	1.241	0.311	0.048	-0.159	-0.363	-0.264	-0.089	-0.035	-0.081	-0.150	-0.232	-0.378	-0.088	0.012	0.025	0.042	0.047	0.043	0.013
28	85.0	1.242	0.311	0.046	-0.158	-0.359	-0.256	-0.061	-0.033	-0.077	-0.138	-0.215	-0.372	-0.098	0.016	0.022	0.040	0.045	0.042	0.012
29	95.0	1.239	0.310	0.044	-0.159	-0.356	-0.251	-0.048	-0.033	-0.074	-0.128	-0.199	-0.370	-0.117	0.022	0.016	0.035	0.040	0.038	0.010
30	105.0	1.240	0.313	0.046	-0.157	-0.354	-0.245	-0.037	-0.031	-0.070	-0.119	-0.184	-0.370	-0.136	0.026	0.012	0.030	0.037	0.036	0.008
31	115.0	1.240	0.317	0.048	-0.155	-0.353	-0.241	-0.037	-0.033	-0.067	-0.112	-0.172	-0.372	-0.149	0.026	0.011	0.028	0.035	0.034	0.007
32	125.0	1.242	0.324	0.052	-0.153	-0.353	-0.238	-0.025	-0.036	-0.066	-0.104	-0.160	-0.372	-0.169	0.028	0.008	0.025	0.032	0.032	0.005
33	134.9	1.241	0.329	0.056	-0.150	-0.353	-0.237	-0.027	-0.040	-0.065	-0.099	-0.151	-0.370	-0.193	0.028	0.007	0.022	0.030	0.030	0.004
34	144.9	1.241	0.338	0.061	-0.146	-0.352	-0.234	-0.016	-0.043	-0.064	-0.093	-0.142	-0.370	-0.199	0.025	0.008	0.022	0.030	0.030	0.004
35	154.9	1.238	0.346	0.068	-0.142	-0.350	-0.232	-0.016	-0.045	-0.063	-0.089	-0.135	-0.370	-0.186	0.020	0.009	0.022	0.029	0.030	0.005
36	164.9	1.241	0.357	0.077	-0.135	-0.347	-0.230	-0.015	-0.046	-0.061	-0.083	-0.127	-0.370	-0.192	0.013	0.014	0.023	0.032	0.033	0.008
37	174.9	1.242	0.370	0.087	-0.126	-0.342	-0.229	-0.028	-0.049	-0.060	-0.078	-0.120	-0.370	-0.178	0.006	0.019	0.029	0.035	0.036	0.011

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.0023	-0.2495	-0.0425	0.4568	1.3144	3.4038	0.3130	0.8108	2.0510
CY	0.7591	1.1056	1.0413	0.5189	-0.1583	-1.3304	-1.2924	-0.2770	0.3459
CAX	3.8229	1.1838	-1.1274	-1.1599	0.0000	0.0900	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	3.1471	-0.0095	-2.2903	-0.3483	-0.3651	-0.4153	-0.3580	-0.2423	-0.1440
CY	0.2497	-0.1677	1.0892	0.5016	0.2846	0.0812	0.0334	0.0842	0.1328
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	0.193	0.095	0.136	0.458	0.139				





DATE 6-WAR-78 PROJECT NO P41C-N0C

APC, INC.

AEDC DIVISION

A SVENORUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 10.52

TC-532 78 1.052 3.004 1407.0 498.5 541.5 1088.4 84.1

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

0.00 13

SURVEY

202

ALFA

0.03

PRAR

2044.6

X

11.967

Y

3.500

Z

-1.575

PRT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.302	0.372	0.102	-0.090	-0.274	-0.192	-0.115	0.022	0.077	-0.035	-0.087	-0.126	-0.168	-0.203	-0.221	-0.214	-0.224	-0.235	-0.267
3	-164.9	1.304	0.378	0.104	-0.089	-0.274	-0.196	-0.123	0.016	0.030	-0.034	-0.083	-0.124	-0.165	-0.198	-0.225	-0.213	-0.213	-0.228	-0.266
4	-155.0	1.302	0.381	0.107	-0.087	-0.271	-0.197	-0.123	0.012	0.028	-0.037	-0.085	-0.127	-0.168	-0.201	-0.228	-0.214	-0.211	-0.231	-0.269
5	-144.9	1.302	0.387	0.111	-0.084	-0.271	-0.197	-0.123	0.005	0.028	-0.042	-0.089	-0.133	-0.173	-0.207	-0.233	-0.216	-0.213	-0.239	-0.277
6	-135.1	1.303	0.398	0.120	-0.077	-0.268	-0.196	-0.122	0.001	0.015	-0.043	-0.093	-0.140	-0.181	-0.218	-0.243	-0.222	-0.220	-0.253	-0.284
7	-125.0	1.302	0.403	0.124	-0.075	-0.261	-0.198	-0.121	0.003	0.006	-0.061	-0.100	-0.149	-0.190	-0.229	-0.255	-0.230	-0.231	-0.267	-0.291
8	-115.1	1.304	0.413	0.133	-0.067	-0.256	-0.195	-0.122	0.002	0.002	-0.070	-0.103	-0.158	-0.196	-0.237	-0.259	-0.237	-0.248	-0.285	-0.288
9	-105.0	1.304	0.423	0.142	-0.061	-0.253	-0.195	-0.122	0.003	0.016	-0.083	-0.113	-0.174	-0.208	-0.247	-0.271	-0.253	-0.263	-0.310	-0.281
10	-95.0	1.306	0.433	0.151	-0.053	-0.253	-0.191	-0.121	0.007	0.028	-0.098	-0.122	-0.187	-0.220	-0.258	-0.281	-0.267	-0.291	-0.331	-0.269
11	-85.0	1.307	0.441	0.161	-0.045	-0.248	-0.187	-0.120	0.003	0.044	-0.111	-0.135	-0.200	-0.234	-0.268	-0.290	-0.283	-0.317	-0.351	-0.265
12	-74.9	1.306	0.449	0.170	-0.036	-0.246	-0.181	-0.107	0.007	0.064	-0.129	-0.152	-0.216	-0.256	-0.285	-0.299	-0.306	-0.350	-0.311	-0.255
13	-65.0	1.305	0.454	0.178	-0.028	-0.238	-0.174	-0.071	0.016	0.092	-0.144	-0.167	-0.229	-0.270	-0.298	-0.290	-0.326	-0.380	-0.279	-0.250
14	-54.9	1.305	0.458	0.186	-0.021	-0.229	-0.169	-0.009	0.021	0.092	-0.158	-0.187	-0.251	-0.292	-0.319	-0.295	-0.353	-0.408	-0.250	-0.257
15	-45.0	1.306	0.461	0.194	-0.013	-0.223	-0.161	0.019	0.022	0.098	-0.165	-0.202	-0.265	-0.305	-0.330	-0.307	-0.372	-0.437	-0.235	-0.255
16	-35.1	1.305	0.461	0.200	-0.006	-0.211	-0.150	0.041	0.022	0.108	-0.180	-0.229	-0.292	-0.331	-0.355	-0.327	-0.405	-0.470	-0.217	-0.249
17	-25.1	1.304	0.458	0.198	-0.003	-0.211	-0.143	0.043	0.020	0.113	-0.181	-0.242	-0.305	-0.344	-0.368	-0.341	-0.424	-0.495	-0.214	-0.246
18	-15.1	1.306	0.455	0.192	-0.006	-0.211	-0.134	0.043	0.020	0.121	-0.193	-0.267	-0.330	-0.369	-0.393	-0.366	-0.454	-0.525	-0.215	-0.247
19	-5.0	1.305	0.449	0.187	-0.009	-0.211	-0.127	0.056	0.019	0.123	-0.197	-0.280	-0.343	-0.382	-0.406	-0.379	-0.470	-0.541	-0.215	-0.246
20	5.0	1.307	0.443	0.182	-0.012	-0.211	-0.125	0.056	0.020	0.134	-0.190	-0.283	-0.346	-0.385	-0.409	-0.382	-0.475	-0.546	-0.215	-0.247
21	15.0	1.309	0.436	0.175	-0.017	-0.211	-0.126	0.067	0.021	0.140	-0.183	-0.286	-0.349	-0.388	-0.412	-0.385	-0.478	-0.549	-0.215	-0.245
22	24.9	1.305	0.426	0.164	-0.026	-0.211	-0.128	0.088	0.020	0.144	-0.180	-0.293	-0.356	-0.395	-0.419	-0.392	-0.485	-0.556	-0.215	-0.244
23	35.0	1.309	0.418	0.153	-0.036	-0.211	-0.135	0.088	0.016	0.140	-0.169	-0.293	-0.356	-0.395	-0.419	-0.392	-0.485	-0.556	-0.215	-0.241
24	45.0	1.306	0.407	0.141	-0.046	-0.211	-0.144	0.057	0.012	0.150	-0.150	-0.302	-0.365	-0.404	-0.428	-0.401	-0.494	-0.565	-0.215	-0.240
25	54.9	1.305	0.398	0.134	-0.053	-0.211	-0.147	0.036	0.006	0.150	-0.140	-0.315	-0.378	-0.417	-0.441	-0.414	-0.507	-0.578	-0.215	-0.232
26	64.9	1.305	0.391	0.126	-0.061	-0.211	-0.154	0.009	0.001	0.154	-0.140	-0.328	-0.391	-0.430	-0.454	-0.427	-0.520	-0.591	-0.215	-0.232
27	74.9	1.306	0.384	0.118	-0.068	-0.211	-0.160	0.028	0.009	0.154	-0.140	-0.341	-0.404	-0.443	-0.467	-0.440	-0.533	-0.604	-0.215	-0.238
28	84.9	1.305	0.378	0.112	-0.073	-0.211	-0.163	0.052	0.023	0.154	-0.140	-0.354	-0.417	-0.456	-0.480	-0.453	-0.546	-0.617	-0.215	-0.235
29	95.0	1.308	0.374	0.108	-0.077	-0.211	-0.167	0.063	0.032	0.154	-0.140	-0.367	-0.430	-0.469	-0.493	-0.466	-0.559	-0.630	-0.215	-0.238
30	105.0	1.308	0.370	0.102	-0.083	-0.211	-0.171	0.083	0.044	0.154	-0.140	-0.380	-0.443	-0.482	-0.506	-0.479	-0.572	-0.643	-0.215	-0.231
31	115.0	1.306	0.367	0.098	-0.087	-0.211	-0.175	0.091	0.050	0.154	-0.140	-0.393	-0.456	-0.495	-0.519	-0.492	-0.585	-0.656	-0.215	-0.227
32	125.0	1.304	0.363	0.094	-0.092	-0.211	-0.180	0.091	0.049	0.154	-0.140	-0.406	-0.469	-0.508	-0.532	-0.505	-0.598	-0.669	-0.215	-0.223
33	134.9	1.304	0.361	0.092	-0.094	-0.211	-0.183	0.090	0.047	0.154	-0.140	-0.419	-0.482	-0.521	-0.545	-0.518	-0.611	-0.682	-0.215	-0.220
34	144.9	1.304	0.361	0.091	-0.095	-0.211	-0.184	0.101	0.043	0.154	-0.140	-0.432	-0.495	-0.534	-0.558	-0.531	-0.624	-0.695	-0.215	-0.218
35	154.9	1.306	0.363	0.093	-0.095	-0.211	-0.185	0.099	0.041	0.154	-0.140	-0.445	-0.508	-0.547	-0.571	-0.544	-0.637	-0.708	-0.215	-0.214
36	164.9	1.304	0.365	0.094	-0.095	-0.211	-0.187	0.114	0.034	0.154	-0.140	-0.458	-0.521	-0.560	-0.584	-0.557	-0.650	-0.721	-0.215	-0.212
37	174.9	1.304	0.368	0.096	-0.094	-0.211	-0.190	0.114	0.029	0.154	-0.140	-0.471	-0.534	-0.573	-0.597	-0.570	-0.663	-0.734	-0.215	-0.210

ORIFICE	27	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0355	0.0833	0.3110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.5107	-0.9944	-1.1779	-0.9654	-0.9590	-2.9752	0.4442	2.5147	2.6343
CXK	0.4011	0.5444	0.3332	0.1410	-0.3802	-0.9037	-0.5223	-0.1508	-0.2858
CXK	4.2618	1.6734	-0.5190	-0.8248	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	-2.6326	-2.2132	-1.7051	-0.9147	-1.7322	-3.7550	-2.1569	-0.2968	-0.3945
CXK	-0.0164	-0.3049	-0.4656	-0.9078	-0.4996	-0.1794	0.3725	0.0826	-0.4871
CXK	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0 CY 195 CA 0 CLM 55 CLV 0

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNO AIR FORCE STATION, TENNESSEE

TEST PART MACH RE410-6

TC-512 75 1.052 3.000 1401.3

PT 496.2

Q 539.1

VI 1086.8

TT 83.0

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY

0.00 13

ALFA 0.01

PBAR 2046.5

X 11.967

Y 3.500

Z -1.950

PNT OPMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

-174.9 1.302 0.371 0.100-0.093-0.278-0.201-0.125 0.005 0.047-0.010-0.058-0.102-0.138-0.173-0.203-0.216-0.189-0.187-0.219

-165.0 1.302 0.375 0.103-0.090-0.276-0.201-0.123 0.001 0.048-0.010-0.058-0.101-0.138-0.172-0.204-0.216-0.181-0.183-0.218

-155.0 1.303 0.381 0.108-0.087-0.274-0.202-0.122 0.006 0.046-0.014-0.062-0.104-0.143-0.175-0.211-0.218-0.178-0.181-0.225

-144.9 1.304 0.388 0.113-0.084-0.273-0.206-0.123 0.019 0.039-0.032-0.070-0.113-0.154-0.183-0.222-0.220-0.183-0.206-0.247

-135.1 1.303 0.395 0.119-0.078-0.268-0.204-0.122 0.019 0.032-0.039-0.076-0.119-0.162-0.190-0.218-0.218-0.189-0.215-0.260

-125.1 1.303 0.402 0.125-0.073-0.266-0.204-0.120 0.016 0.024-0.037-0.085-0.129-0.178-0.206-0.239-0.217-0.199-0.233-0.276

-115.1 1.304 0.408 0.129-0.071-0.265-0.204-0.121 0.010 0.018-0.048-0.091-0.136-0.177-0.207-0.241-0.217-0.206-0.243-0.286

-105.0 1.302 0.416 0.138-0.063-0.258-0.200-0.120 0.005 0.008-0.052-0.101-0.149-0.188-0.222-0.238-0.221-0.220-0.261-0.300

-95.0 1.304 0.424 0.145-0.057-0.254-0.198-0.120 0.015 0.002-0.082-0.111-0.162-0.199-0.238-0.233-0.228-0.270-0.308-0.309

-85.0 1.305 0.432 0.155-0.049-0.248-0.195-0.119 0.021 0.015-0.073-0.124-0.175-0.208-0.254-0.226-0.239-0.257-0.308-0.307

-74.9 1.304 0.437 0.158-0.046-0.246-0.194-0.118 0.018 0.023-0.033-0.080-0.132-0.182-0.208-0.257-0.225-0.245-0.269-0.320-0.285

-65.0 1.305 0.444 0.167-0.037-0.239-0.182-0.103 0.011 0.032-0.030-0.093-0.144-0.195-0.208-0.256-0.220-0.257-0.290-0.345-0.256

-55.0 1.304 0.447 0.175-0.030-0.233-0.181-0.049 0.008 0.049-0.049-0.103-0.154-0.211-0.223-0.250-0.219-0.276-0.317-0.365-0.239

-45.0 1.302 0.448 0.181-0.024-0.228-0.178-0.001 0.008 0.049-0.049-0.112-0.168-0.215-0.240-0.242-0.230-0.280-0.334-0.365-0.231

-35.1 1.304 0.450 0.184-0.021-0.226-0.175 0.024 0.003 0.058-0.058-0.123-0.179-0.224-0.276-0.231-0.227-0.301-0.356-0.316-0.231

-25.1 1.305 0.447 0.180-0.022-0.227-0.176 0.033 0.003 0.060-0.060-0.130-0.180-0.234-0.291-0.223-0.234-0.310-0.369-0.289-0.230

-15.0 1.305 0.446 0.179-0.021-0.224-0.173 0.046 0.015 0.060-0.060-0.132-0.180-0.240-0.303-0.214-0.216-0.311-0.377-0.271-0.227

-5.0 1.305 0.442 0.174-0.024-0.226-0.174 0.045 0.013 0.062-0.062-0.134-0.192-0.246-0.309-0.209-0.219-0.315-0.383-0.265-0.229

5.0 1.306 0.435 0.168-0.029-0.227-0.162 0.070 0.015 0.061-0.061-0.138-0.198-0.249-0.311-0.199-0.236-0.318-0.398-0.263-0.225

15.0 1.307 0.429 0.160-0.035-0.231-0.159 0.077 0.015 0.059-0.059-0.128-0.188-0.242-0.301-0.200-0.226-0.312-0.386-0.270-0.230

25.0 1.305 0.421 0.153-0.040-0.235-0.157 0.077 0.015 0.053-0.053-0.132-0.198-0.258-0.308-0.200-0.212-0.304-0.378-0.298-0.226

35.0 1.305 0.412 0.146-0.049-0.239-0.159 0.049 0.015 0.047-0.047-0.133-0.196-0.255-0.305-0.205-0.198-0.290-0.363-0.355-0.226

45.0 1.306 0.406 0.138-0.053-0.243-0.161 0.033 0.015 0.041-0.041-0.135-0.198-0.250-0.300-0.233-0.286-0.350-0.378-0.378-0.227

55.0 1.305 0.398 0.129-0.062-0.250-0.168-0.007 0.015 0.033-0.033-0.095-0.148-0.189-0.208-0.210-0.176-0.263-0.327-0.370-0.239

65.0 1.307 0.393 0.124-0.067-0.253-0.170-0.032 0.024 0.026-0.026-0.086-0.137-0.181-0.183-0.212-0.172-0.251-0.313-0.367-0.250

75.0 1.305 0.385 0.117-0.074-0.257-0.172-0.069 0.033 0.012-0.012-0.070-0.120-0.163-0.170-0.214-0.158-0.227-0.280-0.337-0.269

85.0 1.306 0.379 0.109-0.081-0.261-0.177-0.092 0.043 0.000-0.000-0.086-0.138-0.189-0.168-0.214-0.148-0.209-0.266-0.310-0.300

95.0 1.306 0.373 0.103-0.087-0.269-0.181-0.101 0.049 0.009-0.009-0.085-0.139-0.163-0.205-0.179-0.198-0.249-0.283-0.301

105.0 1.304 0.370 0.101-0.087-0.269-0.181-0.100 0.051 0.013-0.013-0.040-0.089-0.134-0.168-0.200-0.180-0.195-0.242-0.270-0.293

115.0 1.305 0.367 0.097-0.091-0.272-0.185-0.109 0.054 0.024-0.024-0.076-0.119-0.153-0.184-0.157-0.189-0.228-0.250-0.273

125.0 1.303 0.364 0.095-0.093-0.274-0.185-0.108 0.051 0.028-0.028-0.077-0.114-0.147-0.177-0.150-0.182-0.218-0.231-0.257

135.0 1.304 0.363 0.093-0.095-0.275-0.189-0.107 0.046 0.035-0.035-0.074-0.107-0.140-0.171-0.152-0.186-0.210-0.215-0.240

145.0 1.303 0.362 0.091-0.097-0.279-0.191-0.117 0.040 0.037-0.037-0.066-0.105-0.133-0.169-0.194-0.191-0.209-0.203-0.231

155.0 1.305 0.363 0.091-0.098-0.280-0.193-0.117 0.032 0.042-0.042-0.058-0.098-0.102-0.133-0.166-0.195-0.197-0.205-0.193-0.214

165.0 1.305 0.365 0.094-0.096-0.279-0.194-0.124 0.027 0.045-0.045-0.056-0.091-0.101-0.133-0.166-0.195-0.201-0.198-0.188-0.214

175.0 1.302 0.357 0.093-0.096-0.279-0.196-0.124 0.017 0.046-0.046-0.057-0.091-0.101-0.133-0.168-0.198-0.208-0.195-0.188-0.213

ORIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2499

CWX -0.4559 -0.8382 -0.9634 -0.8112 -0.5513 -2.8893 0.0228 1.7607 1.9935

CWX 0.3406 0.5070 0.4349 0.2222 -0.3428 -0.5379 -0.6594 -0.1359 -0.2259

CAX 4.1602 1.4054 -0.5810 -0.8450 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CWX 2.1466 2.2513 2.4008 0.7841 0.2205 1.7606 3.1777 2.1615 -0.0964

CWX -0.2378 -0.3098 -0.4532 -0.5856 -0.8709 -0.4143 0.3380 0.2146 -0.1670

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CM 0.327 -0.079 0.104 -1.116 0.185



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMED AIR FORCE STATION, TENNESSEE

TEST PART MACH REL10-6

TC-512 80 1.052

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

PT 695.8

Q 538.6

VI 1046.3

TT 82.6

ALFA 0.01

PRAR 2046.4

X 11.467

Y 3.500

Z -1.950

SURVEY 204

ALFA 0.01

PRAR 2046.4

CONFIG 13

ALFA 0.01

PRAR 2046.4

CONFIG 13

ALFA 0.01

PRAR 2046.4

PNR	DPN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.300	0.366	0.096	-0.096	-0.285	-0.337	-0.170	-0.153	-0.152	-0.159	-0.190	-0.177	-0.185	-0.199	-0.258	-0.287	-0.287	-0.244	-0.098
2	174.9	1.300	0.368	0.098	-0.097	-0.285	-0.340	-0.171	-0.155	-0.156	-0.172	-0.192	-0.172	-0.187	-0.221	-0.263	-0.290	-0.289	-0.239	-0.089
3	184.9	1.300	0.374	0.100	-0.094	-0.285	-0.343	-0.180	-0.159	-0.162	-0.181	-0.198	-0.172	-0.194	-0.230	-0.273	-0.298	-0.293	-0.208	-0.077
4	185.0	1.299	0.381	0.106	-0.091	-0.285	-0.348	-0.179	-0.163	-0.171	-0.189	-0.203	-0.177	-0.205	-0.243	-0.288	-0.308	-0.297	-0.159	-0.066
5	185.0	1.300	0.387	0.110	-0.091	-0.286	-0.352	-0.189	-0.170	-0.180	-0.200	-0.208	-0.185	-0.215	-0.256	-0.303	-0.316	-0.299	-0.134	-0.065
6	185.1	1.299	0.396	0.118	-0.084	-0.283	-0.354	-0.197	-0.184	-0.188	-0.208	-0.208	-0.193	-0.238	-0.273	-0.320	-0.316	-0.277	-0.087	-0.052
7	185.1	1.300	0.405	0.125	-0.081	-0.283	-0.359	-0.208	-0.193	-0.199	-0.220	-0.213	-0.205	-0.246	-0.291	-0.336	-0.317	-0.273	-0.061	-0.047
8	185.0	1.300	0.417	0.136	-0.073	-0.280	-0.362	-0.214	-0.208	-0.208	-0.227	-0.215	-0.219	-0.265	-0.314	-0.352	-0.314	-0.274	-0.033	-0.036
9	185.0	1.299	0.437	0.145	-0.068	-0.278	-0.365	-0.234	-0.234	-0.216	-0.233	-0.221	-0.234	-0.283	-0.335	-0.351	-0.312	-0.260	-0.024	-0.031
10	185.0	1.299	0.458	0.152	-0.063	-0.279	-0.373	-0.235	-0.235	-0.235	-0.233	-0.232	-0.233	-0.305	-0.359	-0.331	-0.307	-0.232	-0.013	-0.025
11	185.0	1.303	0.459	0.163	-0.058	-0.278	-0.378	-0.235	-0.235	-0.240	-0.240	-0.239	-0.239	-0.320	-0.378	-0.321	-0.300	-0.200	-0.004	-0.020
12	185.0	1.302	0.459	0.173	-0.050	-0.278	-0.380	-0.244	-0.244	-0.251	-0.255	-0.255	-0.250	-0.348	-0.393	-0.303	-0.289	-0.086	0.004	-0.016
13	185.0	1.302	0.470	0.185	-0.042	-0.274	-0.386	-0.261	-0.261	-0.271	-0.276	-0.276	-0.276	-0.375	-0.419	-0.309	-0.289	-0.061	0.013	-0.009
14	185.0	1.302	0.479	0.191	-0.033	-0.271	-0.389	-0.270	-0.270	-0.280	-0.285	-0.285	-0.285	-0.388	-0.432	-0.318	-0.298	-0.030	0.021	-0.005
15	185.0	1.302	0.485	0.205	-0.028	-0.270	-0.392	-0.287	-0.287	-0.297	-0.302	-0.302	-0.302	-0.401	-0.445	-0.320	-0.298	-0.001	0.021	-0.003
16	185.0	1.303	0.490	0.210	-0.021	-0.269	-0.395	-0.295	-0.295	-0.305	-0.310	-0.310	-0.310	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
17	185.0	1.303	0.492	0.222	-0.017	-0.268	-0.397	-0.295	-0.295	-0.305	-0.310	-0.310	-0.310	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
18	185.0	1.305	0.492	0.224	-0.016	-0.267	-0.398	-0.294	-0.294	-0.304	-0.309	-0.309	-0.309	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
19	185.0	1.305	0.497	0.216	-0.019	-0.270	-0.399	-0.294	-0.294	-0.304	-0.309	-0.309	-0.309	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
20	185.0	1.305	0.481	0.210	-0.024	-0.271	-0.397	-0.292	-0.292	-0.302	-0.307	-0.307	-0.307	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
21	185.0	1.305	0.471	0.201	-0.030	-0.273	-0.396	-0.282	-0.282	-0.292	-0.297	-0.297	-0.297	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
22	185.0	1.307	0.462	0.194	-0.034	-0.273	-0.391	-0.267	-0.267	-0.277	-0.282	-0.282	-0.282	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
23	185.0	1.304	0.447	0.178	-0.047	-0.276	-0.386	-0.257	-0.257	-0.267	-0.272	-0.272	-0.272	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
24	185.0	1.306	0.437	0.167	-0.052	-0.278	-0.381	-0.247	-0.247	-0.257	-0.262	-0.262	-0.262	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
25	185.0	1.306	0.423	0.151	-0.063	-0.280	-0.375	-0.237	-0.237	-0.247	-0.252	-0.252	-0.252	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
26	185.0	1.307	0.414	0.141	-0.067	-0.279	-0.368	-0.235	-0.235	-0.245	-0.250	-0.250	-0.250	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
27	185.0	1.305	0.404	0.134	-0.071	-0.278	-0.362	-0.223	-0.223	-0.233	-0.238	-0.238	-0.238	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
28	185.0	1.305	0.394	0.125	-0.077	-0.280	-0.358	-0.214	-0.214	-0.224	-0.229	-0.229	-0.229	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
29	185.0	1.305	0.384	0.114	-0.083	-0.280	-0.349	-0.203	-0.203	-0.213	-0.218	-0.218	-0.218	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
30	185.0	1.305	0.377	0.108	-0.087	-0.282	-0.346	-0.195	-0.195	-0.205	-0.210	-0.210	-0.210	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
31	185.0	1.307	0.373	0.103	-0.090	-0.282	-0.343	-0.184	-0.184	-0.194	-0.199	-0.199	-0.199	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
32	185.0	1.304	0.368	0.099	-0.092	-0.282	-0.340	-0.183	-0.183	-0.193	-0.198	-0.198	-0.198	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
33	184.9	1.304	0.366	0.098	-0.093	-0.282	-0.338	-0.182	-0.182	-0.192	-0.197	-0.197	-0.197	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
34	184.9	1.303	0.364	0.096	-0.095	-0.282	-0.337	-0.182	-0.182	-0.192	-0.197	-0.197	-0.197	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
35	184.9	1.303	0.365	0.095	-0.095	-0.282	-0.335	-0.173	-0.173	-0.183	-0.188	-0.188	-0.188	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
36	184.9	1.302	0.365	0.095	-0.095	-0.282	-0.336	-0.173	-0.173	-0.183	-0.188	-0.188	-0.188	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000
37	184.9	1.302	0.365	0.095	-0.095	-0.282	-0.336	-0.173	-0.173	-0.183	-0.188	-0.188	-0.188	-0.409	-0.453	-0.325	-0.298	0.015	0.022	-0.000

ORIFICE	2	3	4	5	6	7	8	9	10
AS FT	0.0278	0.0555	0.0831	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CS FT	-0.8102	-1.3606	-1.9110	-2.4614	-3.0118	-3.5622	-4.1126	-4.6630	-5.2134
CW	0.2276	0.2327	0.2378	0.2429	0.2480	0.2531	0.2582	0.2633	0.2684
CAX	6.3478	1.7948	-0.5852	-0.9313	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
AS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CS FT	1.9252	3.3647	4.8042	6.2437	7.6832	9.1227	10.5622	12.0017	13.4412
CW	-0.5866	-0.0731	0.0681	-0.1114	-0.4365	-0.7616	-1.0867	-1.4118	-1.7369
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN	CY	CA	CLM	CLM	CLM
0.0	9	0.1	0.09	0.09	0.09





DATE 6-MAR-78 PROJECT NO P41C-N0C

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ANNOL AIR FORCE STATION, TENNESSEE

TEST PART MACH HX10-6 PT

TC-532 83 1.051 3.001 1399.7 695.8 538.3 1085.7

DATE 6-MAR-78 DATE 2-16-78 AEC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY ALFA 2.01 PHAR 2045.0

2.00 13 202 202

11.967 3.500 -1.375

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DATE 6-MAR-78 PROJECT NO P41C-MOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH REXIC-6 PT P Q VI TT DATE AEDC PROPULSION WIND TUNNEL

TC-532 84 1.049 2.998 1197.9 596.6 536.8 1083.7 87.0 2-16-78 TRANSONIC 4T

ALFA CONFIG SURVEY 203

2.00 13

ALFA 2.01

PRAR 2044.9

Y 11.967

Z 3.500

-1.950

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

2 -174.8 1.305 0.422 0.145-0.034-0.247-0.157-0.031 0.118 0.055 0.004-0.041-0.082-0.115-0.125-0.123-0.114-0.127-0.154-0.189

3 -165.0 1.306 0.423 0.145-0.035-0.247-0.160-0.032 0.117 0.054 0.003-0.041-0.082-0.115-0.125-0.123-0.114-0.127-0.154-0.189

4 -155.0 1.303 0.412 0.150-0.049-0.243-0.158-0.080 0.118 0.052 0.000-0.045-0.086-0.119-0.127-0.126-0.115-0.133-0.151-0.195

5 -144.9 1.302 0.419 0.160-0.043-0.239-0.155-0.079 0.116 0.049 0.003-0.048-0.090-0.125-0.125-0.117-0.139-0.164-0.202

6 -135.1 1.301 0.442 0.161-0.040-0.236-0.154-0.078 0.111 0.046 0.003-0.053-0.095-0.128-0.128-0.117-0.139-0.164-0.202

7 -125.0 1.301 0.448 0.170-0.034-0.232-0.150-0.077 0.102 0.042 0.012-0.059-0.102-0.134-0.137-0.123-0.128-0.156-0.186-0.222

8 -115.0 1.303 0.453 0.177-0.029-0.227-0.146-0.084 0.090 0.037 0.019-0.067-0.111-0.147-0.147-0.123-0.140-0.172-0.200-0.234

9 -105.0 1.300 0.455 0.182-0.024-0.221-0.139-0.081 0.080 0.030 0.026-0.075-0.120-0.150-0.156-0.127-0.148-0.186-0.220-0.255

10 -95.0 1.304 0.460 0.190-0.017-0.217-0.130-0.081 0.068 0.024 0.035-0.086-0.132-0.153-0.163-0.125-0.143-0.182-0.212-0.248-0.285

11 -85.0 1.305 0.461 0.194-0.012-0.213-0.123 0.017 0.062 0.018 0.041-0.095-0.143-0.164-0.162-0.127-0.177-0.230-0.268-0.307

12 -74.8 1.303 0.459 0.194-0.009-0.209-0.118 0.037 0.056 0.010 0.032-0.106-0.157-0.178-0.156-0.113-0.197-0.256-0.288-0.330

13 -65.0 1.303 0.458 0.194-0.006-0.206-0.112 0.073 0.056 0.005-0.059-0.114-0.166-0.196-0.148-0.140-0.208-0.271-0.281-0.330

14 -54.9 1.304 0.453 0.193-0.006-0.204-0.110 0.083 0.054 0.005-0.071-0.128-0.192-0.211-0.140-0.153-0.231-0.301-0.251-0.368

15 -45.0 1.303 0.448 0.188-0.005-0.201-0.103 0.093 0.053 0.014 0.082-0.140-0.197-0.233-0.136-0.164-0.252-0.337-0.211-0.374

16 -35.1 1.303 0.443 0.181-0.005-0.200-0.097 0.106 0.053 0.019 0.082-0.145-0.198-0.244-0.136-0.173-0.261-0.337-0.198-0.374

17 -25.1 1.303 0.435 0.181-0.006-0.198-0.089 0.119 0.053 0.024 0.094-0.147-0.178-0.222-0.132-0.183-0.274-0.347-0.173-0.466

18 -15.0 1.304 0.427 0.173-0.012-0.200-0.089 0.117 0.051 0.032 0.101-0.149-0.159-0.203-0.135-0.191-0.283-0.353-0.173-0.476

19 -5.0 1.307 0.420 0.166-0.017-0.203-0.089 0.120 0.052 0.034 0.101-0.146-0.158-0.193-0.129-0.192-0.284-0.351-0.166-0.473

20 5.0 1.306 0.414 0.161-0.019-0.203-0.089 0.121 0.050 0.035 0.103-0.145-0.152-0.188-0.127-0.191-0.281-0.349-0.167-0.475

21 15.0 1.304 0.404 0.151-0.028-0.206-0.095 0.122 0.049 0.034 0.093-0.136-0.159-0.189-0.127-0.187-0.277-0.344-0.163-0.472

22 24.9 1.302 0.396 0.143-0.034-0.209-0.104 0.121 0.048 0.033 0.083-0.130-0.156-0.186-0.117-0.185-0.271-0.341-0.165-0.470

23 35.0 1.304 0.390 0.136-0.041-0.213-0.112 0.121 0.045 0.029 0.087-0.125-0.153-0.185-0.115-0.178-0.262-0.334-0.169-0.469

24 45.0 1.303 0.383 0.127-0.050-0.218-0.119 0.120 0.054 0.021 0.076-0.119-0.159-0.193-0.112-0.166-0.245-0.316-0.185-0.468

25 54.9 1.305 0.380 0.124-0.056-0.222-0.125 0.122 0.061 0.009 0.062-0.104-0.151-0.187-0.109-0.151-0.223-0.290-0.233-0.468

26 64.9 1.305 0.378 0.118-0.061-0.225-0.130 0.124 0.068 0.002 0.050-0.094-0.141-0.173-0.110-0.150-0.209-0.271-0.258-0.467

27 74.9 1.306 0.377 0.115-0.065-0.229-0.138 0.126 0.077 0.014 0.037-0.081-0.126-0.151-0.114-0.156-0.217-0.284-0.273-0.470

28 84.9 1.305 0.376 0.113-0.068-0.233-0.143 0.115 0.080 0.020 0.030-0.074-0.118-0.143-0.120-0.131-0.177-0.230-0.263-0.478

29 95.0 1.303 0.376 0.113-0.070-0.236-0.143 0.100 0.080 0.021 0.031-0.063-0.108-0.127-0.126-0.113-0.160-0.208-0.251-0.488

30 105.0 1.304 0.380 0.116-0.071-0.240-0.149 0.078 0.092 0.039 0.011-0.055-0.099-0.113-0.130-0.108-0.148-0.191-0.233-0.494

31 115.0 1.301 0.380 0.113-0.074-0.248-0.150 0.043 0.093 0.044 0.006-0.050-0.092-0.110-0.136-0.108-0.136-0.169-0.203-0.507

32 125.0 1.301 0.383 0.114-0.075-0.252-0.150 0.031 0.095 0.046 0.003-0.047-0.084-0.113-0.137-0.109-0.130-0.158-0.189-0.508

33 134.9 1.301 0.388 0.115-0.073-0.253-0.152 0.018 0.098 0.049 0.000-0.044-0.084-0.113-0.135-0.109-0.120-0.173-0.204-0.504

34 144.9 1.304 0.396 0.125-0.069-0.253-0.154-0.003 0.106 0.055 0.005-0.039-0.078-0.108-0.128-0.109-0.128-0.151-0.197-0.226-0.507

35 154.9 1.304 0.402 0.128-0.066-0.254-0.157-0.038 0.110 0.057 0.007-0.037-0.076-0.108-0.126-0.113-0.105-0.120-0.148-0.190

36 164.9 1.304 0.407 0.133-0.063-0.252-0.158-0.081 0.113 0.058 0.008-0.036-0.076-0.108-0.123-0.115-0.104-0.117-0.145-0.188

37 174.9 1.300 0.412 0.138-0.061-0.251-0.160-0.083 0.115 0.057 0.007-0.037-0.077-0.109-0.121-0.119-0.107-0.121-0.145-0.186

ORIFICE

XS FT

0.0278

0.0555

0.0833

0.1110

0.1388

0.1665

0.1943

0.2220

0.2498

0.2775

0.3053

0.3330

0.3608

0.3885

0.4163

0.4440

0.4718

0.4995

XS FT

0.0030

-0.2714

-0.5816

-0.7862

-1.0447

-1.3178

-1.6099

-1.9020

-2.1941

-2.4862

-2.7783

-3.0704

-3.3625

-3.6546

-3.9467

-4.2388

-4.5309

-4.8230

-5.1151

-5.4072

-5.6993

-5.9914

-6.2835

-6.5756

-6.8677

-7.1598

-7.4519

-7.7440

-8.0361

-8.3282

-8.6203

-8.9124

-9.2045

-9.4966

-9.7887

-10.0808

-10.3729

-10.6650

-10.9571

-11.2492

-11.5413

-11.8334

-12.1255

-12.4176

-12.7097

-13.0018

-13.2939

-13.5860

-13.8781

-14.1702

-14.4623

-14.7544

-15.0465

-15.3386

-15.6307

-15.9228

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-16.5070

-16.7991

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-18.8438

-19.1359

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-20.3043

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-21.4727

-21.7648

-22.0569

-22.3490

-22.6411

-22.9332

-23.2253

-23.5174

-23.8095

-24.1016

-24.3937

-24.6858

-24.9779

-25.2700

-25.5621

-25.8542

-26.1463

-26.4384

-26.7305

-27.0226

-27.3147

-27.6068

-27.8989

-28.1910

-28.4831

-28.7752

-29.0673

-29.3594

-29.6515

-29.9436

-30.2357

-30.5278

-30.8199

-31.1120

-31.4041

-31.6962

-31.9883

-32.2804

-32.5725

-32.8646

-33.1567

-33.4488

-33.7409

-34.0330

-34.3251

-34.6172

-34.9093

-35.2014

-35.4935

-35.7856

-36.0777

-36.3698

-36.6619

-36.9540

-37.2461

-37.5382

-37.8303



DATE 6-MAR-78 PROJECT NO P41C-W0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6

TC-532 85 1.050 1398.8 696.1 537.6 1084.8 82.1

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 204

2.00 13

PRAR 2045.0

ALFAS 2.01

Q 13.467

VI 3.500

Y -1.950

DATE 2-16-78

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DATE 8-MAR-78 PROJECT NO P41C-WOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARLORD AIR FORCE STATION, TENNESSEE

TEST PART MACH MEX10-6

TC-532 87 1.051 2.997 1397.1 694.7 537.2 1085.2 82.0

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG 13 SURVEY 201

5.00 13

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
7	-174.9	1.304	0.512	0.236	0.029	-0.128	-0.031	0.171	0.113	0.069	0.029	-0.004	-0.012	0.003	-0.000	-0.033	-0.04	-0.110	-0.126	-0.103		
8	-165.0	1.304	0.525	0.243	0.034	-0.129	-0.031	0.171	0.114	0.071	0.029	-0.005	-0.017	0.001	0.004	-0.030	-0.074	-0.108	-0.125	-0.101		
9	-155.0	1.305	0.535	0.252	0.041	-0.128	-0.035	0.171	0.114	0.069	0.026	-0.009	-0.026	-0.003	0.002	-0.033	-0.078	-0.112	-0.126	-0.102		
10	-144.9	1.303	0.548	0.266	0.054	-0.118	-0.037	0.171	0.115	0.068	0.022	-0.015	-0.038	-0.008	0.001	0.042	-0.08	-0.121	-0.120	-0.102		
11	-135.1	1.306	0.556	0.274	0.063	-0.114	-0.039	0.171	0.115	0.067	0.019	-0.021	-0.044	-0.011	-0.007	0.048	-0.07	-0.130	-0.117	-0.103		
12	-125.0	1.303	0.562	0.286	0.073	-0.109	-0.052	0.171	0.115	0.063	0.013	-0.039	-0.053	-0.013	-0.015	0.063	-0.114	-0.143	-0.108	-0.104		
13	-115.1	1.303	0.564	0.295	0.082	-0.104	-0.087	0.170	0.114	0.057	0.004	-0.040	-0.063	-0.016	-0.024	0.080	-0.136	-0.158	-0.104	-0.107		
14	-105.0	1.302	0.564	0.300	0.091	-0.091	-0.112	0.171	0.113	0.051	-0.005	-0.051	-0.065	-0.017	-0.034	0.099	-0.159	-0.161	-0.099	-0.109		
15	-95.0	1.304	0.561	0.302	0.097	-0.078	-0.139	0.181	0.113	0.045	-0.015	-0.083	-0.074	-0.017	-0.046	0.121	-0.186	-0.151	-0.094	-0.112		
16	-85.0	1.301	0.554	0.304	0.104	-0.055	-0.164	0.181	0.111	0.037	-0.027	-0.075	-0.078	-0.019	-0.059	0.149	-0.216	-0.131	-0.087	-0.112		
17	-75.0	1.302	0.544	0.302	0.108	-0.035	-0.196	0.189	0.106	0.024	-0.043	-0.093	-0.080	-0.028	-0.083	0.189	-0.255	-0.115	-0.087	-0.116		
18	-65.0	1.305	0.533	0.304	0.116	-0.003	-0.240	0.210	0.106	0.016	-0.054	-0.099	-0.071	-0.024	-0.101	0.224	-0.263	-0.090	-0.079	-0.112		
19	-54.9	1.300	0.514	0.295	0.115	0.020	-0.283	0.216	0.097	0.001	-0.071	-0.166	-0.074	-0.031	-0.133	0.273	-0.288	-0.08	-0.078	-0.117		
20	-44.1	1.302	0.499	0.288	0.117	0.042	-0.319	0.226	0.075	-0.023	-0.097	-0.073	-0.058	-0.030	-0.168	0.325	-0.305	-0.071	-0.075	-0.116		
21	-33.1	1.302	0.483	0.280	0.116	0.059	-0.350	0.228	0.075	-0.023	-0.097	-0.073	-0.058	-0.032	-0.205	0.375	-0.375	-0.107	-0.066	-0.116		
22	-25.0	1.303	0.465	0.268	0.112	0.070	-0.371	0.228	0.052	-0.040	-0.113	-0.031	-0.048	-0.036	-0.219	0.413	-0.413	-0.07	-0.050	-0.118		
23	-15.0	1.300	0.446	0.252	0.104	0.078	-0.383	0.171	-0.023	-0.093	-0.162	-0.019	-0.038	-0.044	-0.270	0.423	-0.423	-0.056	-0.04	-0.118		
24	-5.0	1.301	0.431	0.237	0.097	0.084	-0.393	0.166	0.100	-0.058	-0.140	-0.017	0.040	-0.023	-0.460	0.415	-0.415	-0.031	-0.069	-0.116		
25	5.0	1.299	0.416	0.224	0.088	0.083	-0.403	0.159	0.095	-0.064	-0.144	-0.017	0.019	-0.003	-0.640	0.412	-0.412	-0.040	-0.071	-0.112		
26	15.0	1.301	0.403	0.207	0.075	0.073	-0.413	0.098	0.065	-0.137	-0.150	-0.019	0.011	-0.030	-0.810	0.410	-0.410	-0.060	-0.04	-0.077	-0.12	
27	25.0	1.302	0.394	0.194	0.065	0.061	-0.421	0.098	0.051	-0.131	-0.127	-0.018	0.011	-0.026	-1.000	0.397	-0.397	-0.080	-0.04	-0.079	-0.121	
28	35.0	1.300	0.386	0.183	0.056	0.050	-0.429	0.131	0.023	-0.095	-0.097	0.004	0.020	-0.023	-1.210	0.359	-0.359	-0.117	-0.05	-0.060	-0.123	
29	45.0	1.299	0.377	0.177	0.042	0.036	-0.436	0.186	0.131	0.006	-0.071	-0.075	0.009	0.033	-0.010	-1.420	0.301	-0.301	-0.205	-0.066	-0.130	
30	54.9	1.298	0.373	0.156	0.029	0.021	-0.443	0.143	0.143	0.031	-0.048	-0.059	-0.007	0.045	-0.002	-1.630	0.252	-0.252	-0.270	-0.08	-0.137	
31	64.9	1.295	0.372	0.152	0.022	0.013	-0.459	0.159	0.159	0.053	-0.034	-0.040	0.010	0.048	0.007	-1.840	0.216	-0.216	-0.374	-0.08	-0.136	
32	74.9	1.296	0.373	0.145	0.009	-0.014	-0.473	0.166	0.166	0.070	-0.048	-0.029	-0.015	0.047	0.010	-2.050	0.179	-0.179	-0.633	-0.11	-0.104	-0.142
33	84.9	1.299	0.378	0.145	0.003	-0.029	-0.479	0.169	0.169	0.085	-0.013	-0.017	-0.014	0.051	0.016	-2.260	0.151	-0.151	-0.780	-0.13	-0.106	-0.141
34	94.9	1.293	0.382	0.143	0.007	-0.040	-0.461	0.179	0.179	0.098	0.030	-0.003	-0.008	0.052	0.019	-2.470	0.120	-0.120	-0.930	-0.158	-0.109	-0.138
35	105.0	1.292	0.387	0.142	-0.017	-0.054	-0.427	0.176	0.176	0.103	0.038	0.001	-0.015	0.045	0.017	-2.680	0.101	-0.101	-1.079	-0.17	-0.117	-0.141
36	115.0	1.298	0.402	0.149	-0.019	-0.056	-0.388	0.188	0.188	0.111	0.050	0.011	-0.008	0.044	0.019	-2.890	0.080	-0.080	-1.210	-0.17	-0.119	-0.136
37	125.0	1.296	0.414	0.156	-0.019	-0.062	-0.357	0.188	0.188	0.113	0.056	0.015	-0.007	0.036	0.019	-3.100	0.066	-0.066	-1.340	-0.168	-0.122	-0.133
38	134.9	1.295	0.427	0.163	-0.019	-0.071	-0.326	0.187	0.187	0.113	0.059	0.018	-0.006	0.031	0.017	-3.310	0.057	-0.057	-1.470	-0.160	-0.125	-0.124
39	144.9	1.297	0.440	0.173	-0.015	-0.079	-0.295	0.188	0.188	0.115	0.063	0.022	-0.004	0.025	0.017	-3.520	0.049	-0.049	-1.600	-0.149	-0.125	-0.124
40	154.9	1.298	0.455	0.185	-0.009	-0.090	-0.264	0.188	0.188	0.115	0.067	0.026	0.000	0.025	0.016	-3.730	0.040	-0.040	-1.730	-0.135	-0.125	-0.115
41	164.9	1.299	0.476	0.200	0.001	-0.107	-0.233	0.190	0.190	0.115	0.069	0.029	0.000	0.014	0.013	-3.940	0.033	-0.033	-1.860	-0.121	-0.127	-0.110
42	174.9	1.303	0.492	0.212	0.009	-0.120	-0.203	0.189	0.189	0.115	0.069	0.028	0.003	0.002	0.008	-4.150	0.025	-0.025	-1.990	-0.119	-0.129	-0.110

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	0.4952	-0.1196	-1.1209	-3.0908	-5.2362	-7.4824	-9.7286	-11.9748	-14.2210
CYK	1.1684	1.8389	2.5094	3.1799	3.8504	4.5209	5.1914	5.8619	6.5324
CAX	4.8022	2.7393	0.4659	-0.1035	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	0.2204	0.2025	0.1846	0.1667	0.1488	0.1309	0.1130	0.0951	0.0772
CYK	-1.0457	-1.9955	-2.9453	-3.8951	-4.8449	-5.7947	-6.7445	-7.6943	-8.6441
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.253	0.131	0.283	-0.777	0.477	0.477	0.477	0.477	0.477



DATE 4-MAR-79 PROJECT NO P41C-W0C

ARO, INC.  
AEDC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLO AIR FORCE STATION, TENNESSEE  
TEST PART MACH MEX10-6 PT Q VI TT DATE AEDC PROPULSION WIND TUNNEL  
TC-532 88 1.051 2.999 1398.2 695.4 537.6 1085.2 82.1 2-16-78 TRANSONIC 47

ALFA	CONFIG	SURVEY	ALFAS	PRAR	X	Y	Z	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
5.00	13	202	5.00	2045.0	11.967	3.508	-1.575																			
PNT	DPNT																									
2	-174.8	1.304	0.507	0.228	0.020	-0.155	-0.050	0.178	0.118	0.079	0.043	0.011	-0.008	0.002	0.010	-0.015	-0.059	-0.093	-0.120	-0.107						
3	-164.9	1.301	0.513	0.231	0.022	-0.157	-0.055	0.187	0.119	0.081	0.044	0.012	-0.010	-0.008	0.011	-0.013	-0.053	-0.089	-0.121	-0.106						
4	-155.0	1.302	0.524	0.241	0.031	-0.154	-0.051	0.187	0.120	0.080	0.043	0.010	-0.016	-0.008	0.011	-0.014	-0.054	-0.090	-0.124	-0.106						
5	-145.9	1.300	0.531	0.249	0.039	-0.149	-0.045	0.188	0.120	0.080	0.041	0.007	-0.021	-0.012	0.008	-0.018	-0.059	-0.095	-0.127	-0.106						
6	-135.1	1.302	0.538	0.258	0.047	-0.146	-0.035	0.187	0.119	0.078	0.037	0.002	-0.028	-0.017	0.005	-0.025	-0.068	-0.107	-0.130	-0.108						
7	-125.0	1.300	0.541	0.270	0.057	-0.140	-0.010	0.176	0.119	0.075	0.031	0.006	-0.039	-0.021	0.000	-0.036	-0.083	-0.126	-0.158	-0.109						
8	-115.0	1.301	0.542	0.273	0.063	-0.135	0.033	0.176	0.118	0.071	0.026	-0.013	-0.046	-0.023	0.001	-0.045	-0.095	-0.142	-0.174	-0.111						
9	-105.0	1.303	0.539	0.273	0.068	-0.130	0.058	0.175	0.117	0.066	0.018	-0.024	-0.055	-0.023	0.011	-0.059	-0.115	-0.166	-0.215	-0.113						
10	-95.0	1.305	0.535	0.275	0.074	-0.115	0.091	0.178	0.118	0.061	0.010	-0.035	-0.058	-0.014	0.011	-0.079	-0.139	-0.193	-0.240	-0.110						
11	-85.0	1.305	0.528	0.275	0.078	-0.105	0.108	0.179	0.117	0.056	0.001	-0.046	-0.061	-0.011	0.021	-0.094	-0.158	-0.201	-0.248	-0.111						
12	-75.0	1.302	0.516	0.270	0.080	-0.093	0.131	0.179	0.115	0.047	0.011	-0.061	-0.068	-0.012	0.035	-0.117	-0.174	-0.219	-0.266	-0.116						
13	-65.0	1.304	0.504	0.265	0.081	-0.075	0.152	0.187	0.112	0.038	0.026	-0.080	-0.079	-0.017	0.052	-0.150	-0.214	-0.261	-0.308	-0.119						
14	-55.9	1.305	0.490	0.261	0.083	-0.050	0.188	0.192	0.110	0.029	0.034	-0.072	-0.079	-0.006	0.061	-0.175	-0.265	-0.312	-0.359	-0.113						
15	-45.1	1.301	0.473	0.250	0.079	-0.038	0.223	0.189	0.101	0.015	0.050	-0.110	-0.078	-0.008	0.080	-0.205	-0.298	-0.345	-0.392	-0.116						
16	-35.1	1.304	0.462	0.244	0.079	-0.022	0.231	0.192	0.098	0.008	0.058	-0.131	-0.062	-0.003	0.085	-0.224	-0.317	-0.364	-0.411	-0.113						
17	-25.1	1.302	0.446	0.231	0.073	-0.009	0.234	0.192	0.085	0.008	0.040	-0.115	-0.036	0.001	0.108	-0.250	-0.343	-0.390	-0.437	-0.112						
18	-15.0	1.299	0.427	0.215	0.065	-0.001	0.241	0.190	0.066	0.028	0.090	-0.111	-0.020	-0.005	0.128	-0.270	-0.363	-0.410	-0.457	-0.114						
19	-5.0	1.303	0.402	0.191	0.050	0.011	0.237	0.158	0.040	0.047	0.092	-0.046	0.009	-0.002	0.121	-0.268	-0.361	-0.408	-0.455	-0.114						
20	5.0	1.301	0.390	0.177	0.038	0.006	0.211	0.148	0.036	0.042	0.084	-0.046	0.014	-0.000	0.120	-0.259	-0.352	-0.400	-0.447	-0.118						
21	15.0	1.301	0.383	0.167	0.031	0.003	0.200	0.151	0.042	0.031	0.069	-0.047	0.025	0.007	0.109	-0.242	-0.335	-0.383	-0.430	-0.119						
22	25.0	1.299	0.377	0.159	0.024	0.003	0.188	0.150	0.048	0.028	0.056	-0.046	0.032	0.010	0.090	-0.227	-0.320	-0.368	-0.415	-0.117						
23	35.0	1.299	0.372	0.151	0.015	-0.009	0.174	0.151	0.060	0.015	0.038	-0.040	0.037	0.014	0.080	-0.205	-0.298	-0.345	-0.392	-0.119						
24	45.0	1.298	0.369	0.142	0.004	-0.022	0.161	0.162	0.075	0.008	0.020	-0.033	0.043	0.019	0.059	-0.174	-0.267	-0.314	-0.361	-0.124						
25	54.9	1.298	0.368	0.135	-0.007	-0.035	0.149	0.162	0.090	0.028	0.004	-0.033	0.040	0.023	0.048	-0.143	-0.236	-0.283	-0.330	-0.126						
26	64.9	1.297	0.371	0.134	-0.014	-0.049	0.151	0.175	0.110	0.042	0.010	-0.033	0.046	0.028	0.046	-0.116	-0.209	-0.256	-0.303	-0.125						
27	74.9	1.295	0.374	0.133	-0.020	-0.061	0.144	0.175	0.110	0.052	0.017	-0.006	0.046	0.029	0.046	-0.099	-0.192	-0.239	-0.286	-0.128						
28	85.0	1.295	0.380	0.132	-0.028	-0.075	0.100	0.182	0.115	0.060	0.023	-0.004	0.036	0.028	0.046	-0.079	-0.172	-0.219	-0.266	-0.128						
29	95.0	1.299	0.391	0.139	-0.030	-0.077	0.052	0.186	0.122	0.069	0.032	0.006	0.040	0.030	0.046	-0.061	-0.154	-0.201	-0.248	-0.124						
30	105.0	1.294	0.401	0.143	-0.031	-0.087	0.002	0.195	0.123	0.073	0.035	0.007	0.030	0.028	0.046	-0.049	-0.142	-0.189	-0.236	-0.123						
31	115.0	1.295	0.411	0.149	-0.030	-0.096	-0.017	0.194	0.123	0.076	0.038	0.012	0.031	0.028	0.046	-0.041	-0.135	-0.182	-0.229	-0.121						
32	125.0	1.296	0.425	0.159	-0.037	-0.109	0.036	0.194	0.123	0.078	0.041	0.014	0.023	0.026	0.046	-0.033	-0.128	-0.175	-0.222	-0.119						
33	134.9	1.294	0.439	0.168	-0.023	-0.124	0.052	0.193	0.121	0.079	0.043	0.015	0.016	0.024	0.046	-0.025	-0.120	-0.167	-0.214	-0.116						
34	144.9	1.298	0.456	0.182	-0.014	-0.137	0.081	0.194	0.123	0.082	0.047	0.018	0.014	0.023	0.046	-0.018	-0.112	-0.159	-0.206	-0.112						
35	154.9	1.303	0.474	0.197	-0.006	-0.149	0.085	0.196	0.123	0.084	0.049	0.020	0.012	0.021	0.046	-0.012	-0.105	-0.152	-0.199	-0.108						
36	164.9	1.301	0.489	0.210	0.005	-0.156	0.084	0.195	0.121	0.086	0.048	0.019	0.005	0.015	0.046	-0.010	-0.093	-0.140	-0.187	-0.105						
37	174.9																									

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.5586	0.1762	-0.4852	-2.4552	-4.8535	0.3505	1.0273	1.7961	2.0428
CY	1.0056	1.6103	1.4362	-0.7135	0.1818	0.1300	0.2439	0.1468	-0.2267
CAX	4.8762	2.5042	0.2610	-0.2604	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	1.8395	0.1501	0.0975	2.1056	4.0400	3.7132	-0.8225	-0.9161	0.1183
CY	-0.7847	-1.7534	-0.7325	-0.1262	0.0202	0.1290	-0.2251	-0.1447	0.2000
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	CLW	CY	CLW	CLW	CLW	CLW	CLW	CLW	CLW
0.234	0.028	0.263	-0.741	0.452					

DATE 8-MAR-78 PROJECT NO 941C-NOC

ARO, INC.

AEC DIVISION

A SPENDUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH REX10-6 PT P 694.5 537.6 1085.7 92.0

TC-532 99 1.052 2.999 1397.6 694.5 537.6 1085.7 92.0

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 203

5.00 11

ALFA 4.99

PRAR 2044.9

X 11.967

Y 3.500

Z -1.950

PNT DPHI

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

2 -124.9 1.302 0.500 0.222 0.014-0.174-0.069 0.157 0.128 0.092 0.060 0.031 0.009 0.010 0.020 0.005-0.033-0.062-0.099-0.110

3 -183.0 1.304 0.507 0.226 0.016-0.172-0.074 0.207 0.132 0.096 0.064 0.034 0.011 0.010 0.022 0.010-0.024-0.058-0.091-0.112

4 -155.0 1.305 0.515 0.234 0.023-0.173-0.071 0.207 0.132 0.096 0.063 0.034 0.009 0.005 0.022 0.008-0.024-0.058-0.091-0.111

5 -144.9 1.304 0.520 0.238 0.026-0.171-0.069 0.205 0.130 0.094 0.059 0.028 0.001-0.004 0.018 0.003-0.029-0.063-0.103-0.115

6 -135.1 1.302 0.524 0.247 0.035-0.165-0.053 0.191 0.128 0.092 0.056 0.023-0.007-0.014 0.014 0.004-0.038-0.072-0.115-0.117

7 -125.0 1.304 0.525 0.253 0.041-0.161-0.037 0.181 0.128 0.091 0.054 0.020-0.011-0.017 0.013-0.008-0.044-0.083-0.124-0.114

8 -115.1 1.300 0.522 0.252 0.044-0.151-0.025 0.170 0.126 0.086 0.048 0.013-0.030-0.024 0.009-0.010-0.054-0.096-0.138-0.113

9 -105.0 1.301 0.519 0.250 0.047-0.151-0.007 0.161 0.126 0.083 0.041 0.005-0.030-0.027 0.009-0.026-0.067-0.119-0.148-0.109

10 -95.0 1.300 0.511 0.249 0.048-0.141-0.000 0.151 0.125 0.080 0.036-0.003-0.038-0.029 0.001-0.038-0.080-0.137-0.151-0.107

11 -84.9 1.301 0.501 0.245 0.049-0.141 0.008 0.152 0.124 0.076 0.028-0.014-0.048-0.028-0.004-0.055-0.101-0.153-0.139-0.107

12 -75.0 1.304 0.491 0.239 0.049-0.135 0.022 0.151 0.123 0.070 0.020-0.024-0.058-0.020-0.010-0.065-0.122-0.180-0.111-0.108

13 -65.0 1.302 0.478 0.233 0.048-0.127 0.045 0.151 0.121 0.064 0.011-0.034-0.051-0.015-0.015-0.078-0.140-0.211-0.094-0.108

14 -55.0 1.304 0.465 0.226 0.046-0.116 0.067 0.153 0.120 0.058 0.003-0.044-0.046-0.008-0.020-0.093-0.160-0.237-0.083-0.108

15 -45.0 1.303 0.453 0.218 0.044-0.106 0.085 0.154 0.118 0.053-0.004-0.051-0.044-0.005-0.024-0.105-0.177-0.239-0.076-0.106

16 -35.1 1.302 0.436 0.206 0.039-0.096 0.110 0.155 0.113 0.043-0.018-0.061-0.047 0.000-0.030-0.121-0.199-0.207-0.069-0.105

17 -25.1 1.304 0.422 0.194 0.032-0.088 0.127 0.155 0.108 0.035-0.021-0.071-0.054 0.000-0.036-0.135-0.216-0.164-0.066-0.103

18 -15.0 1.300 0.409 0.184 0.027-0.079 0.138 0.157 0.103 0.031-0.026-0.071-0.054 0.010-0.037-0.138-0.220-0.111-0.060-0.103

19 -5.0 1.301 0.399 0.174 0.021-0.072 0.138 0.156 0.098 0.026-0.025-0.068-0.053 0.011-0.039-0.141-0.223-0.084-0.060-0.103

20 5.1 1.303 0.391 0.167 0.016-0.068 0.138 0.158 0.095 0.025-0.021-0.063-0.047 0.010-0.038-0.141-0.222-0.086-0.059-0.103

21 15.0 1.302 0.381 0.156 0.009-0.066 0.131 0.159 0.094 0.026-0.015-0.053-0.036 0.018-0.034-0.138-0.218-0.093-0.061-0.104

22 25.0 1.302 0.374 0.146-0.001-0.066 0.123 0.158 0.095 0.029-0.012-0.045-0.024 0.018-0.030-0.129-0.214-0.116-0.063-0.106

23 35.0 1.299 0.368 0.138-0.009-0.066 0.114 0.150 0.100 0.038-0.001-0.032-0.005 0.023-0.021-0.115-0.201-0.151-0.063-0.105

24 45.0 1.298 0.364 0.130-0.018-0.071 0.102 0.150 0.106 0.046 0.007-0.025 0.005 0.025-0.014-0.102-0.187-0.188-0.066-0.107

25 54.9 1.298 0.364 0.127-0.022-0.075 0.098 0.150 0.111 0.053 0.015-0.016 0.014 0.029-0.008-0.091-0.175-0.199-0.069-0.105

26 64.9 1.300 0.365 0.124-0.030-0.084 0.085 0.151 0.118 0.064 0.028-0.005 0.026 0.031 0.001-0.074-0.156-0.199-0.071-0.107

27 74.9 1.300 0.367 0.123-0.035-0.093 0.061 0.152 0.124 0.072 0.034 0.006 0.031 0.034 0.009-0.055-0.134-0.188-0.079-0.108

28 85.0 1.294 0.371 0.121-0.041-0.103 0.028 0.152 0.129 0.080 0.042 0.016 0.036 0.036 0.015-0.043-0.133-0.188-0.092-0.107

29 95.0 1.298 0.380 0.125-0.044-0.114-0.010 0.152 0.133 0.085 0.047 0.020 0.032 0.036 0.017-0.033-0.096-0.131-0.113-0.110

30 105.0 1.295 0.389 0.131-0.044-0.124-0.047 0.153 0.133 0.088 0.051 0.024 0.031 0.037 0.020-0.022-0.080-0.135-0.124-0.110

31 115.0 1.299 0.399 0.137-0.044-0.138-0.067 0.202 0.133 0.090 0.053 0.026 0.026 0.037 0.020-0.017-0.070-0.128-0.128-0.111

32 125.0 1.297 0.410 0.143-0.041-0.150-0.079 0.202 0.133 0.091 0.057 0.029 0.025 0.035 0.021-0.011-0.061-0.110-0.128-0.111

33 134.9 1.298 0.424 0.154-0.037-0.168-0.090 0.203 0.132 0.093 0.059 0.032 0.023 0.034 0.023-0.005-0.052-0.097-0.123-0.111

34 144.9 1.299 0.438 0.164-0.031-0.178-0.096 0.202 0.131 0.093 0.060 0.034 0.020 0.030 0.022-0.000-0.044-0.086-0.111-0.112

35 154.9 1.299 0.454 0.176-0.023-0.186-0.097 0.203 0.131 0.095 0.062 0.036 0.020 0.029 0.023 0.003-0.025-0.078-0.108-0.111

36 164.9 1.301 0.469 0.189-0.015-0.191-0.096 0.202 0.130 0.094 0.062 0.036 0.017 0.025 0.022 0.008-0.030-0.087-0.101-0.113

37 174.9 1.303 0.484 0.203-0.005-0.191-0.090 0.202 0.129 0.094 0.062 0.034 0.013 0.017 0.021 0.007-0.027-0.082-0.097-0.115

ORIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0933 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CX 0.6213 0.4330 -0.2552 -1.7454 -3.4995 0.3523 0.4666 1.0583 1.3482

CX 0.8608 1.4064 1.3129 -0.4931 0.0950 -0.0874 0.0008 -0.0050 -0.1849

CX 4.5510 2.2871 0.0585 -0.4196 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CX 1.5655 0.8518 0.0490 0.9174 2.3567 3.1772 1.5354 -0.8452 -0.1466

CX -0.4084 -1.0493 -0.9411 -0.2402 -0.0493 0.2423 -0.0017 -0.3084 -0.0111

CX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CLW 0.229 0.015 0.243 -0.577 0.418



DATE 6-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPUSSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6

TC-532 90 1.050 3.002 1399.5 696.9 537.7 1084.1 82.0

DATE 2-16-78

AEDC PROPUSSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 204

5.00 13

ALFA 4.99

PRAR 2045.1

X 13.467

Y 3.500

Z -1.950

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.300	0.467	0.196	-0.008	-0.204	-0.144	-0.057	-0.030	-0.022	-0.024	-0.036	-0.066	-0.097	-0.119	-0.136	-0.080	-0.066	-0.057	-0.072
3	-164.9	1.298	0.474	0.201	-0.004	-0.199	-0.144	-0.063	-0.030	-0.020	-0.020	-0.034	-0.064	-0.098	-0.122	-0.133	-0.057	-0.060	-0.049	-0.063
4	-155.0	1.303	0.484	0.207	-0.000	-0.199	-0.148	-0.065	-0.035	-0.028	-0.027	-0.040	-0.072	-0.109	-0.133	-0.111	-0.054	-0.059	-0.041	-0.063
5	-144.9	1.303	0.494	0.214	-0.006	-0.195	-0.148	-0.073	-0.044	-0.032	-0.032	-0.047	-0.080	-0.119	-0.142	-0.120	-0.045	-0.056	-0.038	-0.061
6	-135.1	1.303	0.503	0.224	-0.013	-0.190	-0.147	-0.070	-0.049	-0.035	-0.035	-0.053	-0.090	-0.130	-0.151	-0.124	-0.040	-0.043	-0.038	-0.058
7	-125.1	1.303	0.510	0.230	-0.018	-0.187	-0.149	-0.079	-0.060	-0.046	-0.047	-0.068	-0.107	-0.150	-0.170	-0.129	-0.044	-0.049	-0.034	-0.058
8	-115.1	1.303	0.515	0.237	-0.021	-0.186	-0.152	-0.088	-0.070	-0.055	-0.057	-0.083	-0.126	-0.173	-0.198	-0.112	-0.050	-0.041	-0.037	-0.058
9	-105.0	1.304	0.521	0.243	-0.026	-0.184	-0.153	-0.088	-0.077	-0.060	-0.065	-0.093	-0.143	-0.189	-0.195	-0.095	-0.054	-0.041	-0.039	-0.058
10	-95.0	1.302	0.523	0.249	-0.030	-0.184	-0.158	-0.098	-0.088	-0.070	-0.078	-0.111	-0.161	-0.218	-0.196	-0.084	-0.062	-0.043	-0.041	-0.055
11	-85.0	1.303	0.528	0.258	-0.035	-0.182	-0.158	-0.098	-0.093	-0.072	-0.089	-0.129	-0.191	-0.235	-0.174	-0.066	-0.065	-0.043	-0.041	-0.053
12	-74.9	1.303	0.527	0.258	-0.037	-0.185	-0.164	-0.118	-0.100	-0.076	-0.099	-0.147	-0.214	-0.260	-0.163	-0.055	-0.068	-0.047	-0.041	-0.054
13	-65.0	1.306	0.527	0.260	-0.039	-0.187	-0.172	-0.129	-0.105	-0.082	-0.107	-0.164	-0.236	-0.283	-0.152	-0.037	-0.071	-0.057	-0.043	-0.051
14	-54.9	1.307	0.525	0.259	-0.038	-0.191	-0.184	-0.141	-0.118	-0.093	-0.118	-0.187	-0.262	-0.283	-0.134	-0.041	-0.076	-0.055	-0.040	-0.051
15	-45.1	1.306	0.519	0.258	-0.036	-0.196	-0.191	-0.152	-0.130	-0.100	-0.125	-0.206	-0.280	-0.245	-0.109	-0.042	-0.079	-0.042	-0.038	-0.049
16	-35.1	1.302	0.512	0.255	-0.034	-0.201	-0.194	-0.162	-0.141	-0.104	-0.130	-0.218	-0.290	-0.239	-0.099	-0.043	-0.081	-0.047	-0.034	-0.046
17	-25.1	1.302	0.504	0.252	-0.030	-0.206	-0.204	-0.169	-0.148	-0.106	-0.132	-0.227	-0.293	-0.223	-0.090	-0.046	-0.081	-0.041	-0.029	-0.040
18	-15.0	1.304	0.492	0.242	-0.020	-0.218	-0.213	-0.170	-0.150	-0.105	-0.137	-0.234	-0.291	-0.178	-0.091	-0.062	-0.081	-0.046	-0.027	-0.037
19	-5.0	1.303	0.484	0.236	-0.014	-0.223	-0.217	-0.168	-0.150	-0.095	-0.134	-0.230	-0.284	-0.153	-0.090	-0.064	-0.081	-0.046	-0.024	-0.032
20	5.0	1.303	0.473	0.226	-0.006	-0.239	-0.215	-0.168	-0.155	-0.083	-0.130	-0.225	-0.279	-0.140	-0.091	-0.074	-0.085	-0.040	-0.024	-0.030
21	15.0	1.303	0.461	0.215	-0.004	-0.244	-0.218	-0.167	-0.148	-0.071	-0.132	-0.215	-0.271	-0.131	-0.089	-0.078	-0.087	-0.045	-0.021	-0.026
22	25.0	1.306	0.449	0.203	-0.013	-0.238	-0.218	-0.166	-0.132	-0.063	-0.130	-0.201	-0.244	-0.113	-0.089	-0.090	-0.094	-0.039	-0.020	-0.023
23	35.0	1.309	0.440	0.190	-0.022	-0.241	-0.203	-0.157	-0.126	-0.057	-0.096	-0.188	-0.253	-0.143	-0.089	-0.103	-0.030	-0.024	-0.010	-0.013
24	45.0	1.304	0.427	0.176	-0.029	-0.238	-0.193	-0.143	-0.099	-0.049	-0.077	-0.163	-0.229	-0.163	-0.090	-0.113	-0.065	-0.024	-0.008	-0.010
25	54.9	1.300	0.417	0.166	-0.033	-0.236	-0.185	-0.132	-0.083	-0.044	-0.068	-0.150	-0.213	-0.191	-0.092	-0.121	-0.080	-0.011	-0.003	-0.005
26	64.9	1.300	0.411	0.160	-0.036	-0.234	-0.178	-0.120	-0.066	-0.035	-0.058	-0.132	-0.192	-0.218	-0.099	-0.134	-0.125	-0.030	-0.003	-0.005
27	74.9	1.300	0.406	0.152	-0.039	-0.232	-0.171	-0.111	-0.056	-0.031	-0.054	-0.116	-0.173	-0.211	-0.121	-0.134	-0.138	-0.040	-0.004	-0.006
28	84.9	1.301	0.405	0.151	-0.039	-0.228	-0.164	-0.099	-0.046	-0.026	-0.046	-0.101	-0.156	-0.208	-0.134	-0.130	-0.146	-0.131	-0.064	-0.030
29	95.0	1.302	0.405	0.148	-0.039	-0.225	-0.159	-0.099	-0.041	-0.023	-0.041	-0.085	-0.139	-0.185	-0.130	-0.153	-0.154	-0.142	-0.091	-0.036
30	105.0	1.301	0.406	0.148	-0.039	-0.224	-0.158	-0.089	-0.031	-0.021	-0.035	-0.074	-0.127	-0.175	-0.164	-0.142	-0.155	-0.120	-0.099	-0.047
31	115.0	1.299	0.408	0.149	-0.039	-0.223	-0.158	-0.090	-0.034	-0.021	-0.031	-0.066	-0.115	-0.160	-0.169	-0.141	-0.152	-0.140	-0.103	-0.058
32	125.0	1.299	0.412	0.151	-0.037	-0.221	-0.153	-0.080	-0.031	-0.020	-0.026	-0.058	-0.104	-0.140	-0.170	-0.139	-0.149	-0.130	-0.100	-0.065
33	134.9	1.300	0.418	0.156	-0.033	-0.218	-0.149	-0.079	-0.027	-0.019	-0.023	-0.044	-0.092	-0.130	-0.165	-0.136	-0.138	-0.140	-0.104	-0.068
34	144.9	1.299	0.426	0.161	-0.031	-0.216	-0.151	-0.079	-0.027	-0.020	-0.022	-0.044	-0.083	-0.118	-0.156	-0.136	-0.130	-0.112	-0.101	-0.071
35	154.9	1.300	0.437	0.169	-0.026	-0.214	-0.151	-0.071	-0.027	-0.020	-0.021	-0.039	-0.075	-0.110	-0.144	-0.136	-0.119	-0.095	-0.090	-0.072
36	164.9	1.300	0.445	0.176	-0.022	-0.211	-0.149	-0.070	-0.024	-0.017	-0.018	-0.034	-0.068	-0.103	-0.136	-0.133	-0.105	-0.083	-0.077	-0.071
37	174.9	1.299	0.457	0.186	-0.014	-0.206	-0.146	-0.069	-0.026	-0.017	-0.017	-0.032	-0.064	-0.098	-0.128	-0.132	-0.083	-0.070	-0.063	-0.067

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	-0.1184	-0.4650	-0.3131	0.3071	1.0508	1.6556	1.8995	1.7214	-0.6459
CYX	0.8052	1.1701	1.0780	0.7462	0.0743	-0.0322	-0.6520	-0.7524	-0.0000
CAX	4.8216	2.4977	-0.0269	-0.6974	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	3.0751	3.5979	1.3261	-0.3608	-1.1964	-0.8508	-0.8710	-0.7613	-0.6185
CYX	-0.4598	-0.4974	-0.7020	-0.4355	0.9608	1.4223	1.6512	0.5845	-0.2349
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM CY CLM CLW 120 385 0.000

DATE 7-MAR-78 PROJECT NO PA1C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-532 219 1.101 2.998 1395.8

P 648.2

Q 550.1

VI 1126.9

TP 82.0

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALPHA CONFIG SURVEY 100

ALFAS 0.02

PARS 2050.9

X 11.218

Y 0.000

Z -2.297

PNT DPHI 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

23 -174.8 1.314 0.413 0.150 -0.049 -0.235 -0.199 -0.134 -0.075 -0.046 -0.035 -0.030 -0.021 -0.014 -0.012 -0.009 -0.006 -0.004 -0.013

24 -164.9 1.337 0.412 0.149 -0.051 -0.237 -0.203 -0.135 -0.077 -0.048 -0.038 -0.032 -0.020 -0.015 -0.011 -0.011 -0.008 -0.002 -0.006 -0.017

25 -155.0 1.333 0.411 0.150 -0.050 -0.236 -0.202 -0.135 -0.078 -0.049 -0.039 -0.034 -0.021 -0.016 -0.011 -0.011 -0.004 -0.003 -0.007 -0.018

26 -144.9 1.331 0.411 0.150 -0.050 -0.237 -0.203 -0.135 -0.078 -0.049 -0.039 -0.034 -0.020 -0.015 -0.011 -0.011 -0.003 -0.004 -0.007 -0.017

27 -135.1 1.334 0.414 0.151 -0.049 -0.236 -0.202 -0.135 -0.076 -0.049 -0.039 -0.034 -0.020 -0.013 -0.011 -0.011 -0.004 -0.004 -0.006 -0.016

28 -125.1 1.336 0.412 0.151 -0.049 -0.236 -0.203 -0.135 -0.078 -0.049 -0.038 -0.033 -0.020 -0.016 -0.011 -0.012 -0.005 -0.003 -0.006 -0.017

29 -115.1 1.330 0.409 0.149 -0.050 -0.237 -0.202 -0.135 -0.078 -0.049 -0.039 -0.034 -0.021 -0.016 -0.011 -0.012 -0.007 -0.004 -0.007 -0.017

30 -104.9 1.331 0.412 0.151 -0.049 -0.236 -0.201 -0.134 -0.077 -0.049 -0.039 -0.034 -0.021 -0.015 -0.011 -0.012 -0.008 -0.005 -0.005 -0.015

31 -95.0 1.335 0.414 0.151 -0.049 -0.236 -0.201 -0.134 -0.076 -0.049 -0.038 -0.033 -0.021 -0.014 -0.011 -0.012 -0.008 -0.004 -0.004 -0.015

32 -85.0 1.334 0.413 0.151 -0.047 -0.234 -0.199 -0.133 -0.075 -0.047 -0.036 -0.031 -0.022 -0.014 -0.011 -0.011 -0.008 -0.004 -0.003 -0.013

33 -74.9 1.331 0.411 0.149 -0.048 -0.234 -0.200 -0.133 -0.076 -0.047 -0.036 -0.032 -0.024 -0.015 -0.011 -0.012 -0.009 -0.005 -0.003 -0.014

34 -65.0 1.332 0.412 0.150 -0.048 -0.234 -0.199 -0.132 -0.075 -0.047 -0.036 -0.031 -0.024 -0.014 -0.011 -0.011 -0.010 -0.006 -0.003 -0.013

35 -54.9 1.334 0.413 0.150 -0.049 -0.234 -0.199 -0.132 -0.075 -0.047 -0.035 -0.031 -0.024 -0.015 -0.011 -0.012 -0.009 -0.006 -0.003 -0.011

36 -45.1 1.336 0.412 0.149 -0.050 -0.235 -0.200 -0.133 -0.075 -0.048 -0.034 -0.032 -0.026 -0.015 -0.011 -0.011 -0.010 -0.006 -0.004 -0.012

37 -35.1 1.331 0.410 0.147 -0.050 -0.235 -0.200 -0.132 -0.076 -0.048 -0.035 -0.032 -0.027 -0.017 -0.011 -0.011 -0.009 -0.006 -0.004 -0.013

38 -25.1 1.332 0.409 0.146 -0.051 -0.236 -0.200 -0.132 -0.075 -0.048 -0.034 -0.032 -0.027 -0.018 -0.011 -0.011 -0.008 -0.006 -0.004 -0.013

39 -15.1 1.332 0.409 0.147 -0.051 -0.235 -0.199 -0.131 -0.075 -0.048 -0.034 -0.031 -0.026 -0.017 -0.011 -0.012 -0.010 -0.009 -0.004 -0.011

40 -5.0 1.331 0.410 0.147 -0.050 -0.234 -0.198 -0.130 -0.074 -0.048 -0.033 -0.030 -0.025 -0.017 -0.011 -0.010 -0.010 -0.008 -0.002 -0.009

41 -5.0 1.334 0.409 0.146 -0.052 -0.236 -0.199 -0.131 -0.075 -0.048 -0.033 -0.030 -0.026 -0.018 -0.011 -0.012 -0.010 -0.009 -0.004 -0.010

42 15.0 1.332 0.407 0.144 -0.053 -0.236 -0.199 -0.131 -0.075 -0.048 -0.033 -0.031 -0.027 -0.019 -0.011 -0.012 -0.010 -0.009 -0.005 -0.011

43 25.0 1.330 0.408 0.145 -0.052 -0.236 -0.198 -0.129 -0.075 -0.048 -0.033 -0.030 -0.025 -0.018 -0.011 -0.011 -0.010 -0.008 -0.002 -0.010

44 35.0 1.333 0.408 0.145 -0.052 -0.237 -0.199 -0.130 -0.075 -0.048 -0.035 -0.030 -0.026 -0.018 -0.011 -0.011 -0.010 -0.008 -0.002 -0.009

45 45.0 1.335 0.409 0.146 -0.052 -0.236 -0.199 -0.129 -0.074 -0.048 -0.034 -0.030 -0.025 -0.018 -0.011 -0.009 -0.010 -0.009 -0.003 -0.009

46 54.9 1.332 0.406 0.143 -0.054 -0.238 -0.200 -0.129 -0.075 -0.047 -0.034 -0.030 -0.027 -0.019 -0.011 -0.011 -0.010 -0.008 -0.004 -0.013

47 64.9 1.333 0.407 0.143 -0.055 -0.239 -0.201 -0.129 -0.075 -0.047 -0.035 -0.031 -0.027 -0.019 -0.011 -0.011 -0.010 -0.008 -0.004 -0.013

48 74.9 1.331 0.407 0.144 -0.054 -0.238 -0.201 -0.129 -0.075 -0.048 -0.036 -0.031 -0.026 -0.018 -0.011 -0.011 -0.010 -0.007 -0.004 -0.013

49 84.9 1.333 0.408 0.145 -0.054 -0.238 -0.200 -0.128 -0.075 -0.048 -0.036 -0.032 -0.025 -0.017 -0.011 -0.010 -0.010 -0.007 -0.004 -0.013

50 95.0 1.333 0.407 0.146 -0.054 -0.238 -0.200 -0.128 -0.076 -0.049 -0.036 -0.032 -0.024 -0.016 -0.011 -0.010 -0.010 -0.006 -0.004 -0.013

51 105.0 1.333 0.408 0.144 -0.055 -0.240 -0.202 -0.129 -0.077 -0.050 -0.038 -0.033 -0.025 -0.017 -0.011 -0.011 -0.010 -0.006 -0.004 -0.016

52 115.0 1.333 0.409 0.146 -0.055 -0.238 -0.201 -0.127 -0.077 -0.050 -0.038 -0.033 -0.023 -0.015 -0.011 -0.011 -0.010 -0.005 -0.004 -0.015

53 125.0 1.332 0.409 0.146 -0.053 -0.238 -0.201 -0.126 -0.077 -0.049 -0.038 -0.033 -0.022 -0.015 -0.011 -0.011 -0.008 -0.005 -0.003 -0.015

54 134.9 1.336 0.411 0.148 -0.051 -0.237 -0.200 -0.125 -0.076 -0.049 -0.037 -0.032 -0.020 -0.014 -0.011 -0.009 -0.006 -0.002 -0.004 -0.015

55 144.9 1.334 0.410 0.147 -0.052 -0.237 -0.202 -0.125 -0.077 -0.049 -0.036 -0.033 -0.022 -0.015 -0.011 -0.010 -0.006 -0.003 -0.007 -0.017

56 154.9 1.334 0.410 0.148 -0.052 -0.237 -0.202 -0.125 -0.077 -0.049 -0.037 -0.033 -0.022 -0.015 -0.011 -0.010 -0.005 -0.003 -0.007 -0.018

57 164.9 1.332 0.411 0.148 -0.052 -0.238 -0.203 -0.125 -0.078 -0.050 -0.039 -0.034 -0.022 -0.015 -0.011 -0.010 -0.004 -0.004 -0.008 -0.017

58 174.9 1.333 0.411 0.149 -0.051 -0.237 -0.203 -0.125 -0.077 -0.050 -0.039 -0.033 -0.020 -0.015 -0.011 -0.010 -0.004 -0.004 -0.007 -0.017

ORIFICE

XS FT

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CY

CAX

ORIFICE

XS FT

CX

CY

CAX

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CY

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CLW

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DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH WIND TUNNEL

TC-532 220 1.101 3.001 1367.3 649.3 550.5 1126.5 82.0

PT DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 100

ALFA 2.02

PRAP 2050.9

X 11.216

Y 0.000

Z -2.297

PNT DPHT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.332 0.449 0.176 0.029 0.223 0.196 0.132 0.076 0.051 0.040 0.031 0.020 0.015 0.012 0.008 0.000 0.003 0.006 0.016

2 -174.9 1.335 0.451 0.184 0.020 0.218 0.194 0.130 0.076 0.051 0.040 0.031 0.020 0.015 0.012 0.008 0.000 0.003 0.006 0.016

3 -164.9 1.335 0.451 0.184 0.020 0.217 0.193 0.128 0.076 0.050 0.039 0.030 0.018 0.014 0.010 0.007 0.001 0.004 0.014

4 -145.0 1.335 0.447 0.178 0.024 0.221 0.198 0.131 0.079 0.053 0.042 0.033 0.020 0.017 0.014 0.010 0.009 0.004 0.016

5 -144.9 1.335 0.447 0.178 0.024 0.221 0.198 0.131 0.079 0.053 0.042 0.033 0.020 0.017 0.014 0.010 0.009 0.004 0.016

6 -135.1 1.335 0.447 0.175 0.027 0.222 0.199 0.130 0.086 0.053 0.041 0.032 0.020 0.017 0.014 0.010 0.009 0.004 0.016

7 -125.1 1.334 0.437 0.168 0.033 0.227 0.203 0.140 0.086 0.055 0.041 0.033 0.022 0.020 0.017 0.013 0.004 0.005 0.009 0.019

8 -115.1 1.334 0.434 0.164 0.036 0.228 0.203 0.138 0.086 0.054 0.040 0.030 0.020 0.017 0.013 0.004 0.005 0.009 0.019

9 -105.0 1.335 0.424 0.157 0.042 0.232 0.205 0.138 0.087 0.055 0.040 0.031 0.022 0.020 0.017 0.013 0.004 0.005 0.009 0.018

10 -95.0 1.332 0.415 0.149 0.048 0.235 0.205 0.136 0.087 0.055 0.039 0.029 0.021 0.018 0.016 0.013 0.008 0.007 0.007 0.016

11 -85.0 1.335 0.412 0.146 0.050 0.231 0.208 0.137 0.088 0.054 0.039 0.030 0.023 0.018 0.016 0.013 0.009 0.007 0.007 0.017

12 -74.9 1.334 0.404 0.141 0.055 0.240 0.207 0.137 0.088 0.053 0.038 0.030 0.023 0.019 0.016 0.013 0.011 0.008 0.007 0.016

13 -65.0 1.334 0.397 0.134 0.059 0.243 0.207 0.137 0.088 0.051 0.036 0.029 0.024 0.019 0.016 0.013 0.011 0.008 0.007 0.017

14 -55.0 1.333 0.391 0.128 0.064 0.245 0.207 0.136 0.087 0.049 0.034 0.028 0.025 0.018 0.016 0.013 0.012 0.009 0.008 0.017

15 -45.1 1.336 0.386 0.124 0.068 0.247 0.208 0.135 0.085 0.046 0.033 0.027 0.024 0.018 0.015 0.012 0.010 0.009 0.008 0.015

16 -35.1 1.336 0.382 0.119 0.071 0.248 0.208 0.142 0.083 0.043 0.032 0.026 0.024 0.017 0.014 0.011 0.010 0.009 0.008 0.014

17 -25.1 1.333 0.377 0.116 0.074 0.250 0.205 0.141 0.079 0.041 0.031 0.026 0.024 0.017 0.015 0.012 0.010 0.009 0.008 0.014

18 -15.1 1.330 0.371 0.110 0.078 0.253 0.205 0.143 0.076 0.041 0.031 0.026 0.024 0.017 0.015 0.012 0.010 0.009 0.008 0.015

19 -5.1 1.331 0.371 0.110 0.078 0.252 0.203 0.141 0.076 0.039 0.030 0.026 0.024 0.018 0.014 0.012 0.010 0.009 0.008 0.012

20 5.0 1.332 0.370 0.109 0.080 0.253 0.203 0.141 0.074 0.038 0.030 0.025 0.022 0.017 0.014 0.011 0.010 0.009 0.008 0.012

21 15.0 1.334 0.370 0.108 0.081 0.253 0.203 0.141 0.074 0.038 0.030 0.025 0.022 0.017 0.014 0.011 0.010 0.009 0.008 0.013

22 25.0 1.332 0.371 0.108 0.081 0.253 0.204 0.141 0.075 0.040 0.030 0.026 0.025 0.019 0.015 0.012 0.010 0.009 0.008 0.013

23 35.0 1.328 0.372 0.110 0.080 0.253 0.204 0.140 0.076 0.042 0.031 0.027 0.025 0.019 0.016 0.012 0.010 0.009 0.008 0.013

24 45.0 1.331 0.378 0.119 0.077 0.251 0.204 0.139 0.077 0.044 0.031 0.025 0.023 0.018 0.015 0.011 0.010 0.009 0.008 0.012

25 54.9 1.333 0.383 0.119 0.074 0.250 0.203 0.138 0.076 0.045 0.032 0.026 0.023 0.018 0.014 0.010 0.011 0.009 0.008 0.011

26 64.9 1.333 0.387 0.121 0.072 0.250 0.208 0.138 0.076 0.047 0.034 0.028 0.025 0.019 0.015 0.012 0.010 0.009 0.008 0.015

27 74.9 1.330 0.391 0.125 0.069 0.248 0.208 0.138 0.086 0.049 0.034 0.028 0.027 0.023 0.018 0.014 0.010 0.009 0.008 0.016

28 84.9 1.330 0.399 0.132 0.064 0.244 0.207 0.137 0.080 0.049 0.035 0.029 0.025 0.020 0.016 0.012 0.010 0.009 0.008 0.015

29 95.0 1.331 0.409 0.139 0.057 0.240 0.205 0.135 0.082 0.048 0.034 0.028 0.025 0.020 0.016 0.012 0.010 0.009 0.008 0.015

30 105.0 1.334 0.415 0.146 0.054 0.239 0.206 0.136 0.085 0.051 0.035 0.029 0.024 0.020 0.017 0.012 0.009 0.008 0.016

31 115.0 1.333 0.420 0.149 0.051 0.237 0.207 0.136 0.085 0.053 0.037 0.030 0.026 0.021 0.017 0.013 0.009 0.008 0.016

32 125.0 1.336 0.430 0.156 0.044 0.232 0.208 0.135 0.085 0.052 0.037 0.029 0.023 0.018 0.014 0.010 0.006 0.005 0.016

33 134.9 1.333 0.433 0.160 0.041 0.232 0.208 0.135 0.085 0.053 0.039 0.031 0.024 0.021 0.017 0.012 0.006 0.005 0.019

34 144.9 1.330 0.438 0.165 0.036 0.237 0.203 0.135 0.085 0.053 0.039 0.031 0.023 0.021 0.015 0.010 0.004 0.004 0.017

35 154.9 1.331 0.444 0.171 0.031 0.234 0.200 0.134 0.081 0.052 0.039 0.031 0.022 0.015 0.009 0.001 0.003 0.007 0.017

36 164.9 1.334 0.450 0.177 0.027 0.231 0.198 0.133 0.078 0.051 0.040 0.031 0.020 0.013 0.008 0.000 0.003 0.008 0.015

37 174.9 1.334 0.449 0.179 0.025 0.221 0.191 0.136 0.075 0.052 0.040 0.032 0.023 0.018 0.013 0.008 0.003 0.007 0.015

38 184.9 1.334 0.449 0.179 0.025 0.221 0.191 0.136 0.075 0.052 0.040 0.032 0.023 0.018 0.013 0.008 0.003 0.007 0.015

GRIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CNX 0.5296 0.7944 0.7918 0.5165 0.1088 0.1263 0.1263 0.1263 0.1263

CYX 0.0774 0.1673 0.1985 0.1241 0.0232 0.0116 0.0809 0.0544 0.0544

CAX 4.2330 1.7469 -0.4846 -0.7881 0.0000 0.0000 0.0000 0.0000 0.0000

GRIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3230 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNX -0.0871 0.0509 0.0163 0.0183 0.0493 0.2011 0.0984 -0.0325 -0.0646

CYX -0.0222 0.0416 0.0306 0.0064 -0.0193 0.0388 -0.0083 -0.0265 -0.0217

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CN 0.082 0.013 0.196 0.252 0.054 0.054 0.054 0.054 0.054

CY 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.013 0.013

CA 0.196 0.196 0.196 0.196 0.196 0.196 0.196 0.196 0.196

CLM 0.252 0.252 0.252 0.252 0.252 0.252 0.252 0.252 0.252

CLN 0.054 0.054 0.054 0.054 0.054 0.054 0.054 0.054 0.054

DATE 7-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REXIO-6 PT P Q VI TT DATE AEDC PROPULSION WIND TUNNEL

TC-532 221 1.099 2.997 1386.3 650.0 549.6 1125.4 87.1 2-17-78 TRANSONIC 4T

ALFA CONFIG SURVEY 100 ALFAS 5.00 PRAR 2050.7 X 11.218 Y 0.000 Z -2.297

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.334	0.512	0.227	0.012	0.194	-0.180	-0.123	-0.076	-0.054	-0.041	-0.026	-0.017	-0.011	-0.008	-0.002	0.007	0.001	-0.001	-0.011
3	-164.9	1.335	0.512	0.234	0.021	-0.187	-0.178	-0.121	-0.079	-0.056	-0.041	-0.025	-0.015	-0.010	-0.007	-0.004	0.009	0.004	0.001	-0.009
4	-155.0	1.332	0.507	0.230	0.018	-0.180	-0.170	-0.122	-0.082	-0.060	-0.046	-0.030	-0.019	-0.011	-0.010	-0.004	0.006	0.001	-0.002	-0.011
5	-145.9	1.333	0.494	0.215	0.005	-0.199	-0.189	-0.137	-0.091	-0.072	-0.055	-0.040	-0.029	-0.021	-0.019	-0.013	-0.001	-0.009	-0.007	-0.015
6	-135.1	1.335	0.485	0.211	0.002	-0.202	-0.191	-0.136	-0.092	-0.072	-0.055	-0.041	-0.031	-0.024	-0.022	-0.018	-0.005	-0.009	-0.011	-0.019
7	-125.0	1.334	0.471	0.200	0.007	-0.208	-0.197	-0.138	-0.097	-0.075	-0.058	-0.045	-0.036	-0.029	-0.027	-0.024	-0.012	-0.016	-0.019	-0.024
8	-115.0	1.334	0.453	0.186	0.020	-0.219	-0.203	-0.145	-0.102	-0.078	-0.059	-0.049	-0.039	-0.033	-0.031	-0.029	-0.017	-0.021	-0.024	-0.027
9	-105.0	1.336	0.437	0.170	0.033	-0.229	-0.210	-0.155	-0.106	-0.079	-0.062	-0.050	-0.043	-0.035	-0.033	-0.027	-0.022	-0.025	-0.030	-0.030
10	-95.0	1.334	0.417	0.153	0.047	-0.239	-0.216	-0.158	-0.109	-0.081	-0.064	-0.056	-0.046	-0.039	-0.038	-0.035	-0.025	-0.025	-0.030	-0.030
11	-85.0	1.334	0.399	0.137	0.062	-0.249	-0.222	-0.158	-0.112	-0.081	-0.064	-0.058	-0.045	-0.042	-0.040	-0.037	-0.026	-0.026	-0.030	-0.031
12	-74.9	1.332	0.383	0.122	0.072	-0.258	-0.222	-0.163	-0.113	-0.078	-0.062	-0.056	-0.047	-0.040	-0.038	-0.033	-0.024	-0.024	-0.030	-0.030
13	-65.0	1.330	0.365	0.108	0.083	-0.262	-0.221	-0.163	-0.110	-0.073	-0.057	-0.050	-0.043	-0.035	-0.033	-0.027	-0.022	-0.021	-0.027	-0.028
14	-54.9	1.332	0.349	0.091	0.096	-0.270	-0.221	-0.163	-0.106	-0.065	-0.043	-0.039	-0.034	-0.030	-0.028	-0.023	-0.019	-0.017	-0.017	-0.022
15	-45.0	1.332	0.341	0.084	0.100	-0.271	-0.218	-0.161	-0.101	-0.053	-0.035	-0.034	-0.031	-0.026	-0.024	-0.019	-0.017	-0.015	-0.015	-0.025
16	-35.1	1.330	0.335	0.079	0.103	-0.271	-0.214	-0.159	-0.094	-0.043	-0.031	-0.031	-0.027	-0.021	-0.019	-0.018	-0.014	-0.012	-0.012	-0.021
17	-25.1	1.329	0.325	0.070	0.109	-0.272	-0.210	-0.158	-0.081	-0.031	-0.024	-0.024	-0.020	-0.018	-0.017	-0.015	-0.011	-0.010	-0.010	-0.020
18	-15.1	1.331	0.321	0.066	0.113	-0.274	-0.209	-0.159	-0.074	-0.024	-0.022	-0.022	-0.020	-0.018	-0.016	-0.013	-0.011	-0.010	-0.009	-0.019
19	-5.0	1.331	0.317	0.062	0.116	-0.275	-0.209	-0.159	-0.069	-0.024	-0.021	-0.021	-0.020	-0.018	-0.016	-0.013	-0.011	-0.010	-0.008	-0.019
20	5.0	1.330	0.315	0.060	0.118	-0.275	-0.209	-0.158	-0.066	-0.024	-0.020	-0.020	-0.023	-0.021	-0.019	-0.015	-0.012	-0.009	-0.008	-0.019
21	15.0	1.328	0.317	0.061	0.116	-0.275	-0.208	-0.157	-0.063	-0.023	-0.023	-0.023	-0.023	-0.021	-0.018	-0.014	-0.011	-0.010	-0.005	-0.016
22	25.0	1.331	0.319	0.063	0.116	-0.274	-0.208	-0.156	-0.060	-0.023	-0.024	-0.025	-0.025	-0.023	-0.020	-0.016	-0.013	-0.010	-0.008	-0.017
23	35.0	1.328	0.323	0.064	0.115	-0.275	-0.210	-0.156	-0.063	-0.023	-0.024	-0.026	-0.026	-0.025	-0.022	-0.019	-0.015	-0.012	-0.011	-0.009
24	45.0	1.326	0.328	0.070	0.112	-0.277	-0.211	-0.155	-0.064	-0.023	-0.028	-0.029	-0.029	-0.027	-0.024	-0.021	-0.017	-0.014	-0.013	-0.010
25	54.9	1.328	0.338	0.077	0.107	-0.272	-0.214	-0.155	-0.064	-0.023	-0.031	-0.031	-0.031	-0.029	-0.026	-0.023	-0.019	-0.015	-0.014	-0.010
26	64.9	1.326	0.353	0.088	0.100	-0.271	-0.219	-0.156	-0.067	-0.023	-0.035	-0.035	-0.035	-0.033	-0.030	-0.027	-0.023	-0.018	-0.017	-0.013
27	74.9	1.329	0.364	0.096	0.095	-0.269	-0.221	-0.155	-0.067	-0.023	-0.040	-0.040	-0.040	-0.038	-0.035	-0.032	-0.028	-0.024	-0.021	-0.017
28	84.9	1.330	0.383	0.111	-0.083	-0.262	-0.221	-0.153	-0.064	-0.021	-0.057	-0.057	-0.057	-0.055	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033
29	95.0	1.330	0.399	0.124	-0.074	-0.253	-0.223	-0.154	-0.068	-0.023	-0.062	-0.062	-0.062	-0.060	-0.057	-0.054	-0.050	-0.046	-0.042	-0.038
30	105.1	1.329	0.417	0.140	-0.061	-0.249	-0.220	-0.153	-0.069	-0.023	-0.062	-0.062	-0.062	-0.060	-0.057	-0.054	-0.050	-0.046	-0.042	-0.038
31	115.0	1.330	0.436	0.157	-0.048	-0.238	-0.215	-0.151	-0.066	-0.023	-0.060	-0.060	-0.060	-0.058	-0.055	-0.052	-0.048	-0.044	-0.040	-0.036
32	125.0	1.330	0.453	0.172	-0.034	-0.229	-0.211	-0.151	-0.064	-0.023	-0.057	-0.057	-0.057	-0.055	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033
33	134.9	1.331	0.472	0.189	-0.020	-0.218	-0.203	-0.151	-0.066	-0.023	-0.057	-0.057	-0.057	-0.055	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033
34	144.9	1.334	0.484	0.199	-0.010	-0.212	-0.199	-0.151	-0.066	-0.023	-0.057	-0.057	-0.057	-0.055	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033
35	154.9	1.333	0.499	0.214	0.003	-0.201	-0.191	-0.146	-0.069	-0.023	-0.054	-0.054	-0.054	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033	-0.029
36	164.9	1.334	0.506	0.222	0.010	-0.196	-0.186	-0.141	-0.068	-0.023	-0.054	-0.054	-0.054	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033	-0.029
37	174.9	1.332	0.512	0.231	0.018	-0.190	-0.181	-0.129	-0.061	-0.023	-0.054	-0.054	-0.054	-0.052	-0.049	-0.045	-0.041	-0.037	-0.033	-0.029

ORIFICE

XS FT

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK

CXK



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELLION WIND TUNNEL

ARNO AIR FORCE STATION, TENNESSEE

TEST PART WACN HX10-6 PT

TC-532 191 1.100 2.997 1400.7 655.7 555.8 1131.0 86.5

DATE 3-17-78 AEDC PROPELLION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY 101

ALFA 0.01

PRAR 2048.2

Y 0.000

Z -2.297

PNT DPMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.334 0.413 0.154 0.035 0.214 0.118 0.082 0.036 0.011 0.037 0.048 0.046 0.034 0.038 0.040 0.080 0.096 0.100 0.048

1.333 0.412 0.152 0.037 0.217 0.120 0.081 0.048 0.004 0.036 0.048 0.045 0.031 0.034 0.037 0.069 0.098 0.103 0.069

1.331 0.414 0.154 0.035 0.215 0.130 0.078 0.045 0.003 0.036 0.048 0.043 0.031 0.032 0.035 0.064 0.097 0.101 0.068

1.332 0.415 0.155 0.035 0.216 0.131 0.071 0.037 0.008 0.041 0.047 0.044 0.032 0.034 0.039 0.067 0.100 0.103 0.068

1.333 0.417 0.156 0.034 0.216 0.131 0.071 0.027 0.013 0.046 0.047 0.043 0.032 0.034 0.037 0.067 0.100 0.103 0.068

1.332 0.419 0.158 0.033 0.213 0.128 0.061 0.015 0.020 0.041 0.046 0.039 0.034 0.039 0.048 0.077 0.109 0.095 0.063

1.331 0.422 0.161 0.031 0.211 0.128 0.052 0.008 0.028 0.041 0.045 0.037 0.033 0.041 0.045 0.085 0.115 0.085 0.059

1.331 0.427 0.165 0.027 0.208 0.121 0.031 0.020 0.041 0.044 0.045 0.033 0.033 0.045 0.046 0.097 0.124 0.070 0.054

1.329 0.429 0.168 0.026 0.205 0.117 0.019 0.018 0.054 0.049 0.048 0.032 0.040 0.049 0.045 0.108 0.100 0.053 0.053

1.331 0.435 0.171 0.022 0.200 0.108 0.007 0.048 0.061 0.040 0.048 0.028 0.038 0.051 0.082 0.116 0.111 0.043 0.047

1.330 0.438 0.174 0.018 0.192 0.099 0.008 0.074 0.083 0.030 0.048 0.026 0.048 0.060 0.100 0.133 0.132 0.028 0.048

1.332 0.444 0.178 0.014 0.191 0.088 0.022 0.094 0.101 0.079 0.040 0.025 0.045 0.068 0.117 0.148 0.143 0.017 0.046

1.334 0.451 0.183 0.010 0.185 0.052 0.045 0.110 0.118 0.099 0.028 0.045 0.079 0.118 0.165 0.170 0.001 0.046

1.333 0.454 0.186 0.008 0.184 0.041 0.065 0.138 0.138 0.085 0.017 0.027 0.048 0.093 0.160 0.184 0.002 0.000 0.045

1.334 0.458 0.189 0.003 0.180 0.100 0.083 0.156 0.150 0.086 0.012 0.029 0.049 0.104 0.175 0.198 0.019 0.000 0.043

1.334 0.460 0.192 0.001 0.177 0.103 0.096 0.169 0.159 0.070 0.012 0.030 0.050 0.114 0.186 0.210 0.003 0.010 0.042

1.332 0.459 0.193 0.000 0.173 0.100 0.107 0.170 0.169 0.070 0.116 0.090 0.032 0.050 0.124 0.156 0.221 0.014 0.013 0.043

1.332 0.461 0.195 0.001 0.170 0.098 0.100 0.190 0.187 0.116 0.090 0.030 0.033 0.049 0.134 0.160 0.231 0.005 0.010 0.042

1.330 0.461 0.197 0.003 0.173 0.088 0.138 0.193 0.196 0.070 0.130 0.030 0.032 0.048 0.135 0.160 0.233 0.001 0.020 0.038

1.332 0.462 0.197 0.002 0.170 0.084 0.137 0.189 0.196 0.070 0.130 0.030 0.032 0.048 0.135 0.160 0.233 0.001 0.020 0.037

1.331 0.460 0.195 0.002 0.170 0.093 0.124 0.173 0.169 0.070 0.130 0.030 0.032 0.048 0.135 0.160 0.233 0.001 0.020 0.037

1.332 0.457 0.196 0.002 0.171 0.108 0.113 0.158 0.148 0.111 0.023 0.037 0.044 0.124 0.152 0.220 0.002 0.010 0.038

1.334 0.455 0.188 0.005 0.171 0.100 0.091 0.130 0.129 0.103 0.026 0.024 0.040 0.107 0.176 0.202 0.003 0.001 0.036

1.335 0.451 0.184 0.010 0.163 0.070 0.070 0.110 0.109 0.070 0.070 0.070 0.070 0.070 0.070 0.070 0.070 0.070 0.070

1.332 0.446 0.180 0.013 0.174 0.067 0.058 0.108 0.097 0.091 0.033 0.028 0.030 0.075 0.140 0.160 0.116 0.000 0.037

1.331 0.443 0.178 0.015 0.180 0.084 0.044 0.097 0.089 0.089 0.089 0.089 0.089 0.089 0.089 0.089 0.089 0.089 0.089

1.331 0.439 0.174 0.018 0.180 0.099 0.032 0.085 0.078 0.084 0.042 0.035 0.038 0.063 0.116 0.151 0.138 0.001 0.037

1.334 0.433 0.169 0.023 0.198 0.110 0.097 0.067 0.063 0.051 0.048 0.047 0.038 0.033 0.055 0.099 0.135 0.135 0.020 0.039

1.333 0.429 0.166 0.026 0.202 0.116 0.090 0.052 0.051 0.048 0.048 0.038 0.033 0.055 0.099 0.135 0.135 0.020 0.039

1.335 0.426 0.162 0.029 0.207 0.120 0.091 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.333 0.421 0.160 0.032 0.209 0.124 0.082 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.333 0.418 0.157 0.034 0.212 0.127 0.083 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.331 0.417 0.155 0.035 0.214 0.128 0.082 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.333 0.417 0.153 0.036 0.214 0.130 0.082 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.332 0.415 0.152 0.037 0.216 0.132 0.082 0.051 0.048 0.048 0.038 0.033 0.038 0.045 0.074 0.108 0.108 0.000 0.042

1.334 0.415 0.152 0.037 0.216 0.133 0.080 0.037 0.037 0.033 0.033 0.033 0.033 0.033 0.033 0.033 0.033 0.033 0.033

ORIFICE 2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498

CNX -0.3270 -0.4901 -0.5677 -0.5768 -0.5757 -0.5757 -0.5757 -0.5757 -0.5757

CYX -0.0197 -0.0247 -0.0276 -0.0276 -0.0276 -0.0276 -0.0276 -0.0276 -0.0276

CAX 4.5016 2.5998 -0.1794 -0.5960 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNX -0.4193 -0.4423 0.2552 1.5149 2.6730 2.5331 -1.7194 -2.0871 -0.3934

CYX 0.0092 0.0170 -0.0533 0.1453 0.3792 0.4211 0.0089 -0.3398 -0.2364

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CN 0.095 0.014 0.327 -0.246 0.000 0.000 0.000 0.000 0.000

CN 0.095 0.014 0.327 -0.246 0.000 0.000 0.000 0.000 0.000

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH RE10-6 PT P Q VI TT

TC-512 182 1.102 2.998 1401.4 455.1 556.4 1132.2 86.6

DATE 2-17-78 AEDC PROPELSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG 12 SURVEY 102 ALFA 0.02 PRAR 2047.8 X 11.210 Y 0.000 Z -2.947

PNT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.332	0.417	0.154	-0.035	-0.217	-0.140	-0.079	0.017	0.031	-0.004	-0.029	-0.037	-0.029	-0.021	-0.021	-0.045	-0.07	-0.085	-0.090
3	-164.9	1.333	0.419	0.156	-0.035	-0.217	-0.143	-0.078	0.014	0.038	0.000	-0.025	-0.036	-0.028	-0.017	-0.016	-0.038	-0.02	-0.082	-0.093
4	-155.0	1.335	0.420	0.158	-0.034	-0.216	-0.145	-0.078	0.014	0.036	-0.003	-0.025	-0.036	-0.030	-0.017	-0.016	-0.038	-0.02	-0.082	-0.096
5	-146.9	1.331	0.420	0.159	-0.033	-0.215	-0.144	-0.077	0.016	0.031	-0.003	-0.026	-0.037	-0.031	-0.018	-0.017	-0.038	-0.04	-0.085	-0.098
6	-135.1	1.330	0.422	0.161	-0.032	-0.214	-0.142	-0.077	0.015	0.025	-0.006	-0.029	-0.037	-0.031	-0.018	-0.017	-0.041	-0.09	-0.088	-0.096
7	-125.0	1.332	0.426	0.164	-0.029	-0.212	-0.140	-0.077	0.014	0.019	-0.008	-0.031	-0.037	-0.031	-0.019	-0.022	-0.044	-0.02	-0.091	-0.094
8	-115.1	1.334	0.429	0.166	-0.027	-0.211	-0.139	-0.077	0.011	0.009	-0.015	-0.035	-0.037	-0.031	-0.022	-0.022	-0.049	-0.09	-0.092	-0.091
9	-105.0	1.332	0.431	0.168	-0.025	-0.209	-0.137	-0.067	0.008	0.002	-0.021	-0.039	-0.040	-0.035	-0.024	-0.027	-0.055	-0.07	-0.102	-0.085
10	-95.0	1.330	0.434	0.171	-0.023	-0.207	-0.133	-0.064	0.008	0.005	-0.015	-0.040	-0.044	-0.040	-0.031	-0.027	-0.063	-0.07	-0.110	-0.068
11	-85.0	1.330	0.439	0.177	-0.018	-0.203	-0.127	-0.058	0.012	0.024	-0.014	-0.045	-0.037	-0.031	-0.027	-0.038	-0.068	-0.13	-0.118	-0.051
12	-74.9	1.329	0.443	0.179	-0.016	-0.201	-0.122	-0.053	0.022	0.039	-0.046	-0.047	-0.034	-0.031	-0.030	-0.045	-0.079	-0.16	-0.121	-0.038
13	-65.0	1.333	0.448	0.184	-0.012	-0.198	-0.117	-0.048	0.031	0.047	-0.053	-0.044	-0.028	-0.031	-0.030	-0.045	-0.087	-0.121	-0.121	-0.027
14	-54.9	1.335	0.453	0.188	-0.009	-0.195	-0.109	-0.038	0.044	0.057	-0.061	-0.041	-0.021	-0.031	-0.031	-0.056	-0.096	-0.10	-0.121	-0.022
15	-45.1	1.333	0.456	0.192	-0.005	-0.191	-0.101	-0.038	0.047	0.067	-0.070	-0.043	-0.018	-0.021	-0.032	-0.062	-0.107	-0.18	-0.121	-0.017
16	-35.1	1.334	0.460	0.195	-0.002	-0.188	-0.092	-0.009	0.058	0.078	-0.081	-0.055	-0.004	-0.021	-0.031	-0.072	-0.121	-0.17	-0.102	-0.014
17	-25.1	1.330	0.462	0.201	0.002	-0.183	-0.081	0.010	0.066	0.086	-0.088	-0.068	-0.011	-0.021	-0.031	-0.099	-0.132	-0.153	-0.071	-0.011
18	-15.0	1.331	0.461	0.203	0.003	-0.182	-0.074	0.011	0.066	0.091	-0.094	-0.077	-0.038	-0.021	-0.034	-0.084	-0.138	-0.156	-0.051	-0.012
19	-5.0	1.330	0.464	0.203	0.004	-0.180	-0.061	0.011	0.062	0.077	-0.093	-0.096	-0.080	-0.040	-0.021	-0.035	-0.066	-0.140	-0.17	-0.041
20	5.0	1.333	0.465	0.205	0.005	-0.180	-0.050	0.005	0.077	0.095	-0.097	-0.081	-0.041	-0.021	-0.034	-0.087	-0.142	-0.18	-0.031	-0.009
21	15.1	1.334	0.465	0.205	0.005	-0.180	-0.047	-0.003	0.077	0.093	-0.096	-0.082	-0.039	-0.021	-0.034	-0.087	-0.142	-0.18	-0.031	-0.008
22	25.0	1.330	0.460	0.199	0.002	-0.183	-0.043	-0.005	0.065	0.089	-0.088	-0.078	-0.032	-0.021	-0.034	-0.084	-0.139	-0.155	-0.069	-0.009
23	35.0	1.332	0.458	0.196	0.001	-0.184	-0.030	-0.005	0.066	0.081	-0.083	-0.068	-0.025	-0.021	-0.034	-0.076	-0.134	-0.152	-0.091	-0.009
24	45.0	1.333	0.456	0.194	-0.003	-0.177	-0.083	0.007	0.058	0.078	-0.075	-0.060	-0.018	-0.021	-0.031	-0.071	-0.128	-0.18	-0.105	-0.008
25	54.9	1.333	0.453	0.191	-0.005	-0.189	-0.094	0.008	0.045	0.072	-0.067	-0.052	-0.013	-0.021	-0.031	-0.066	-0.120	-0.141	-0.121	-0.010
26	64.9	1.329	0.448	0.187	-0.008	-0.192	-0.100	0.017	0.047	0.066	-0.060	-0.051	-0.014	-0.021	-0.031	-0.060	-0.120	-0.135	-0.121	-0.013
27	74.9	1.329	0.444	0.181	-0.011	-0.194	-0.107	0.018	0.046	0.057	-0.052	-0.054	-0.019	-0.031	-0.031	-0.052	-0.103	-0.138	-0.121	-0.016
28	84.9	1.330	0.439	0.177	-0.015	-0.198	-0.116	0.031	0.028	0.045	-0.045	-0.055	-0.030	-0.031	-0.028	-0.043	-0.091	-0.120	-0.121	-0.028
29	95.0	1.332	0.438	0.177	-0.016	-0.199	-0.119	0.008	0.011	0.031	-0.036	-0.052	-0.031	-0.031	-0.023	-0.035	-0.069	-0.101	-0.108	-0.060
30	105.0	1.332	0.430	0.172	-0.021	-0.203	-0.126	-0.034	0.008	0.018	-0.027	-0.045	-0.038	-0.031	-0.023	-0.039	-0.069	-0.101	-0.108	-0.060
31	114.9	1.334	0.430	0.168	-0.023	-0.206	-0.130	-0.045	0.008	0.010	-0.024	-0.041	-0.038	-0.031	-0.022	-0.039	-0.063	-0.096	-0.101	-0.072
32	125.0	1.335	0.428	0.166	-0.027	-0.209	-0.134	-0.057	0.009	0.003	-0.016	-0.034	-0.038	-0.021	-0.031	-0.022	-0.054	-0.085	-0.092	-0.085
33	134.9	1.336	0.425	0.163	-0.029	-0.211	-0.138	-0.077	0.014	0.004	-0.011	-0.030	-0.037	-0.021	-0.020	-0.019	-0.047	-0.08	-0.091	-0.092
34	144.9	1.333	0.421	0.158	-0.031	-0.213	-0.141	-0.077	0.014	0.020	-0.007	-0.028	-0.036	-0.021	-0.022	-0.019	-0.044	-0.072	-0.091	-0.097
35	154.9	1.330	0.418	0.155	-0.033	-0.216	-0.143	-0.086	0.014	0.026	-0.008	-0.027	-0.039	-0.021	-0.021	-0.019	-0.043	-0.070	-0.081	-0.097
36	164.9	1.330	0.417	0.155	-0.034	-0.217	-0.145	-0.086	0.013	0.031	-0.003	-0.027	-0.038	-0.021	-0.021	-0.019	-0.041	-0.066	-0.081	-0.096
37	174.9	1.334	0.419	0.157	-0.034	-0.217	-0.145	-0.085	0.014	0.037	0.000	-0.025	-0.036	-0.021	-0.015	-0.019	-0.037	-0.063	-0.081	-0.096

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0833	0.110	0.138	0.165	0.1943	0.220	0.248
CX1	-0.3092	-0.5291	-0.5508	-0.5291	-1.6755	-1.6755	1.4466	2.088	1.5029
CX2	-0.0060	-0.0292	-0.0547	-0.0867	-0.2198	-0.2237	0.1962	0.2894	0.1212
CX3	4.5388	2.1692	-0.1528	-0.6037	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX1	0.7331	-0.1654	-0.0877	0.2892	1.1144	1.5866	1.5464	-0.1390	-1.6045
CX2	0.1431	-0.0791	-0.0822	-0.0034	0.0978	0.3111	0.3291	0.0458	-0.2837
CX3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.056	0.005	0.228	CLX	-0.272	CLX	-0.021	CLX	-0.021





DATE 6-MAR-78 PROJECT NO P41C-W0C

ARD, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 184 1.105 2.999 1401.6 632.8 557.4 1134.7

DATE 2-17-78

AEC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG 12 SURVEY 104

ALFA 0.02

PRAR 2047.9

VI 12.718

IT 86.7

Z -3.497

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.319 0.419 0.158 0.033 0.215 0.108 0.092 0.046 0.006 0.001 0.004 0.012 0.022 0.037 0.062 0.073 0.051 0.040 0.089

1.339 0.418 0.155 0.036 0.217 0.114 0.101 0.047 0.012 0.004 0.008 0.011 0.024 0.043 0.070 0.082 0.061 0.047 0.095

1.337 0.418 0.154 0.036 0.219 0.114 0.104 0.048 0.012 0.008 0.009 0.011 0.025 0.043 0.071 0.082 0.061 0.047 0.095

1.338 0.420 0.157 0.035 0.218 0.114 0.104 0.048 0.012 0.008 0.009 0.011 0.024 0.043 0.071 0.082 0.061 0.047 0.095

1.337 0.422 0.158 0.034 0.218 0.115 0.105 0.051 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.334 0.424 0.161 0.032 0.217 0.116 0.106 0.052 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.338 0.430 0.165 0.030 0.216 0.117 0.108 0.053 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.339 0.435 0.168 0.028 0.217 0.119 0.109 0.055 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.336 0.439 0.171 0.027 0.217 0.121 0.110 0.059 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.333 0.444 0.175 0.025 0.216 0.123 0.112 0.061 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.335 0.452 0.180 0.022 0.214 0.124 0.113 0.062 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.335 0.457 0.184 0.019 0.214 0.126 0.115 0.063 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.335 0.466 0.191 0.015 0.213 0.128 0.116 0.064 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.337 0.472 0.196 0.012 0.212 0.129 0.117 0.064 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.338 0.476 0.200 0.010 0.212 0.129 0.118 0.064 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.338 0.479 0.204 0.010 0.212 0.130 0.119 0.064 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

1.334 0.481 0.207 0.007 0.210 0.130 0.120 0.067 0.012 0.010 0.012 0.013 0.027 0.045 0.073 0.085 0.063 0.049 0.109

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ORIFICE

X5 FT

CNX

CYX

CAX

ORIFICE

X5 FT

CNX

CYX

CAX

CN

CLW

CLW

CLW

CLW

CLW

CLW



DATE 6-MAR-78 PROJECT NO P41C-NOC

ASO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 186 1.102 3.001 1403.2 455.3 557.4 1133.0 88.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA	CONFIG	SURVEY	ALFAS	PHAR	X	Y	Z
2.00	12	101	2.01	2048.4	11.218	0.000	-2.297

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
8	-174.8	1.333	0.447	0.190	-0.001	-0.178	-0.081	-0.029	0.071	0.018	-0.004	0.002	0.018	0.020	0.007	-0.003	-0.035	-0.049	-0.020	0.014
9	-164.9	1.333	0.447	0.189	-0.002	-0.180	-0.081	-0.029	0.078	0.022	-0.005	0.003	0.018	0.021	0.014	0.002	-0.039	-0.051	-0.023	0.015
10	-155.0	1.331	0.446	0.189	-0.003	-0.187	-0.081	-0.029	0.077	0.021	-0.005	0.004	0.018	0.020	0.014	0.002	-0.039	-0.051	-0.023	0.015
11	-146.9	1.316	0.447	0.189	-0.002	-0.186	-0.084	-0.018	0.074	0.019	-0.006	0.005	0.020	0.020	0.013	0.001	-0.039	-0.051	-0.021	0.012
12	-135.1	1.331	0.446	0.187	-0.003	-0.185	-0.083	-0.018	0.065	0.015	-0.009	0.005	0.020	0.018	0.010	0.005	-0.031	-0.051	-0.017	0.009
13	-125.0	1.330	0.444	0.186	-0.003	-0.184	-0.081	-0.018	0.054	0.009	-0.011	0.006	0.021	0.016	0.008	0.010	-0.031	-0.051	-0.013	0.008
14	-115.1	1.332	0.445	0.188	-0.001	-0.181	-0.087	0.003	0.038	0.002	-0.012	0.010	0.022	0.016	0.006	0.016	-0.044	-0.053	-0.001	0.008
15	-105.0	1.332	0.446	0.189	-0.000	-0.179	-0.084	0.013	0.027	-0.004	-0.013	0.012	0.023	0.014	0.004	0.023	-0.059	-0.053	0.004	0.006
16	-95.0	1.335	0.448	0.190	0.001	-0.174	-0.077	0.022	0.007	-0.016	-0.014	0.016	0.021	0.012	0.003	0.035	-0.059	-0.047	0.012	0.002
17	-85.0	1.335	0.448	0.189	0.001	-0.168	-0.070	0.022	0.006	-0.004	-0.014	0.021	0.019	0.010	0.000	0.044	-0.067	-0.039	0.016	0.000
18	-74.9	1.335	0.451	0.193	0.004	-0.151	-0.052	0.010	0.014	-0.040	-0.016	0.031	0.018	0.008	-0.017	0.063	-0.082	-0.011	0.025	0.002
19	-65.0	1.333	0.452	0.194	0.006	-0.131	-0.034	-0.003	-0.053	-0.051	-0.017	0.036	0.016	0.006	-0.026	0.078	-0.092	0.009	0.029	0.005
20	-54.9	1.335	0.455	0.197	0.010	-0.108	0.017	0.032	0.079	0.066	-0.020	0.041	0.014	0.003	-0.041	0.099	-0.108	0.035	0.039	0.005
21	-45.0	1.333	0.455	0.198	0.012	-0.085	0.074	0.053	0.101	0.076	-0.024	0.040	0.014	0.001	-0.055	0.115	-0.121	0.052	0.039	0.006
22	-35.1	1.332	0.455	0.200	0.014	-0.069	0.082	0.065	0.115	0.093	-0.027	0.036	0.016	0.003	-0.063	0.126	-0.128	0.062	0.042	0.006
23	-25.1	1.331	0.457	0.202	0.016	-0.052	0.077	0.078	0.129	0.090	-0.031	0.030	0.016	0.005	-0.060	0.136	-0.132	0.074	0.047	0.005
24	-15.0	1.331	0.458	0.203	0.018	-0.037	0.065	0.102	0.147	0.098	-0.039	0.033	0.013	0.003	-0.060	0.150	-0.130	0.087	0.051	0.006
25	-5.0	1.335	0.460	0.206	0.021	-0.033	0.059	0.112	0.151	0.100	-0.049	0.032	0.007	0.009	-0.059	0.161	-0.122	0.096	0.055	0.004
26	5.0	1.331	0.458	0.206	0.021	-0.030	0.059	0.112	0.150	0.101	-0.056	0.023	0.008	0.008	-0.059	0.164	-0.116	0.099	0.057	0.004
27	15.0	1.332	0.460	0.207	0.024	-0.024	0.047	0.119	0.145	0.101	-0.057	0.023	0.011	0.005	-0.054	0.156	-0.113	0.102	0.061	0.000
28	25.0	1.331	0.459	0.203	0.019	-0.029	0.053	0.119	0.137	0.107	-0.052	0.005	0.010	0.005	-0.054	0.153	-0.124	0.096	0.057	0.003
29	35.0	1.331	0.456	0.201	0.016	-0.043	0.063	0.093	0.123	0.098	-0.042	0.015	0.012	0.003	-0.053	0.145	-0.116	0.088	0.055	0.002
30	45.0	1.331	0.454	0.198	0.012	-0.067	0.087	0.084	0.103	0.078	-0.034	0.028	0.013	0.000	-0.058	0.133	-0.118	0.074	0.052	0.003
31	54.9	1.331	0.452	0.195	0.009	-0.088	0.084	0.063	0.091	-0.085	-0.030	0.031	0.016	0.003	-0.044	0.122	-0.133	0.061	0.049	0.003
32	64.9	1.332	0.451	0.192	0.005	-0.117	0.004	0.040	0.069	-0.045	-0.024	0.029	0.022	0.008	-0.042	0.102	-0.116	0.037	0.045	0.000
33	74.9	1.334	0.451	0.191	0.004	-0.133	0.029	0.028	0.055	-0.035	-0.022	0.023	0.023	0.010	-0.032	0.089	-0.107	0.012	0.042	0.000
34	84.9	1.334	0.450	0.190	0.002	-0.148	0.000	0.013	0.041	-0.035	-0.021	0.017	0.023	0.011	-0.023	0.077	-0.098	-0.014	0.039	0.002
35	95.0	1.335	0.449	0.188	0.000	-0.159	-0.064	0.010	0.025	-0.038	-0.015	0.012	0.023	0.012	-0.015	0.063	-0.088	-0.037	0.033	0.003
36	105.0	1.336	0.449	0.189	0.001	-0.165	-0.074	0.021	0.009	-0.048	-0.015	0.010	0.023	0.014	-0.037	0.050	-0.077	-0.048	0.028	0.005
37	115.0	1.334	0.447	0.186	0.002	-0.171	-0.080	0.021	0.002	-0.052	-0.014	0.010	0.022	0.015	-0.040	0.041	-0.070	-0.055	0.022	0.005
38	125.0	1.335	0.447	0.186	0.004	-0.180	-0.087	0.020	0.022	0.036	-0.011	0.007	0.020	0.017	0.003	0.027	-0.056	-0.060	0.011	0.007
39	134.9	1.332	0.446	0.185	0.004	-0.182	-0.090	0.020	0.030	0.010	-0.009	0.006	0.020	0.017	0.003	0.023	-0.051	-0.060	0.005	0.008
40	144.9	1.333	0.417	0.186	0.004	-0.184	-0.091	0.009	0.042	0.014	-0.007	0.005	0.019	0.019	0.008	0.016	-0.044	-0.058	-0.021	0.009
41	154.9	1.335	0.449	0.188	0.003	-0.185	-0.093	0.000	0.058	0.030	-0.004	0.004	0.020	0.021	0.012	0.007	-0.035	-0.050	-0.010	0.011
42	164.9	1.331	0.447	0.186	0.004	-0.180	-0.094	0.003	0.066	0.031	-0.004	0.002	0.018	0.020	0.012	0.004	-0.032	-0.053	-0.017	0.010
43	174.9	1.333	0.448	0.188	0.003	-0.180	-0.094	0.010	0.073	0.023	-0.002	0.002	0.019	0.022	0.014	0.001	-0.039	-0.053	-0.020	0.012

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.0804	-0.1924	-0.3258	-0.4270	-2.4639	1.5218	3.5029	2.0167	0.6206
CXK	-0.0089	0.0115	0.0016	-0.2700	-0.2667	0.1638	0.4794	0.0435	0.1140
CXK	4.8543	2.3554	0.8438	-0.4382	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	-0.1774	0.1629	0.4370	1.7524	2.4982	1.6809	-2.5446	-1.1978	0.2310
CXK	0.1293	-0.0360	-0.0113	0.2731	0.4372	0.3985	-0.2442	-0.3688	-0.0339
CXK	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CLW	0.133	0.023	0.249	-0.239	CLW	-0.016			

DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 187 1.103

PT 1402.8

P 454.8

Q 557.4

VI 1133.2

VT 86.7

DATE 2-17-78

AEDC PROPULSION WIND TUNNEL

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DATE 6-MAR-78 PROJECT NO P41C-WOC

ARO, INC.

AEDC DIVISION

A SPYERUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNSOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH HX10-6 PT

TC-512 189 1.102 3.001 1402.8 655.1 557.3 1132.9 86.7

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY ALFAS PHAR X Y Z

2.00 12 103 2048.4 11.218 0.000 -3.697

PNT	DPN1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.9	1.331	0.452	0.193	-0.004	-0.129	-0.039	0.017	0.084	0.058	0.030	0.014	0.023	0.040	0.030	0.015	0.007	-0.005	-0.026	19
3	-164.9	1.331	0.452	0.191	-0.005	-0.131	-0.047	0.012	0.085	0.059	0.032	0.014	0.021	0.042	0.030	0.018	0.009	-0.003	-0.027	3
4	-155.0	1.330	0.451	0.190	-0.005	-0.131	-0.046	0.013	0.086	0.059	0.031	0.013	0.022	0.042	0.030	0.018	0.008	-0.003	-0.027	4
5	-145.9	1.330	0.450	0.190	-0.004	-0.132	-0.045	0.017	0.086	0.059	0.031	0.013	0.022	0.042	0.030	0.018	0.008	-0.003	-0.027	5
6	-135.1	1.332	0.449	0.188	-0.004	-0.131	-0.045	0.023	0.079	0.057	0.030	0.012	0.023	0.042	0.030	0.016	0.003	-0.008	-0.028	6
12	-125.0	1.331	0.447	0.185	-0.007	-0.133	-0.047	0.033	0.069	0.051	0.027	0.015	0.030	0.033	0.033	0.025	0.014	0.001	-0.013	13
13	-115.1	1.333	0.447	0.186	-0.005	-0.130	-0.044	0.036	0.067	0.051	0.025	0.012	0.021	0.037	0.027	0.013	0.002	-0.014	-0.031	13
14	-105.1	1.332	0.442	0.184	-0.006	-0.129	-0.046	0.039	0.058	0.046	0.020	0.007	0.028	0.036	0.024	0.007	0.010	-0.022	-0.034	14
15	-95.0	1.330	0.439	0.183	-0.005	-0.125	-0.045	0.042	0.053	0.040	0.017	0.006	0.031	0.035	0.022	0.003	0.016	-0.028	-0.035	15
16	-85.0	1.329	0.438	0.182	-0.005	-0.120	-0.034	0.045	0.047	0.034	0.014	0.008	0.034	0.035	0.021	0.000	0.021	-0.032	-0.034	16
17	-75.0	1.331	0.436	0.183	-0.003	-0.115	-0.024	0.046	0.041	0.030	0.011	0.010	0.034	0.036	0.021	0.004	0.022	-0.039	-0.031	17
18	-65.0	1.333	0.435	0.183	-0.002	-0.110	-0.013	0.045	0.034	0.022	0.007	0.011	0.031	0.035	0.019	0.009	0.031	-0.045	-0.024	18
19	-54.9	1.334	0.434	0.183	-0.001	-0.105	-0.002	0.043	0.029	0.015	0.003	0.012	0.028	0.033	0.017	0.014	0.040	-0.050	-0.011	19
20	-45.0	1.331	0.431	0.184	0.001	-0.097	0.011	0.039	0.021	0.006	0.002	0.011	0.023	0.031	0.014	0.021	0.052	-0.055	0.015	20
21	-35.1	1.332	0.429	0.183	0.001	-0.095	0.019	0.037	0.016	0.000	0.007	0.009	0.018	0.029	0.012	0.026	0.059	-0.059	0.025	21
22	-25.1	1.331	0.428	0.183	0.002	-0.092	0.020	0.035	0.014	0.005	0.010	0.011	0.017	0.029	0.009	0.039	0.061	-0.061	0.035	22
23	-15.0	1.329	0.426	0.184	0.002	-0.089	0.029	0.033	0.010	0.010	0.015	0.014	0.014	0.027	0.008	0.032	0.067	-0.064	0.041	23
24	-5.0	1.328	0.426	0.184	0.003	-0.086	0.029	0.032	0.008	0.014	0.018	0.018	0.014	0.027	0.005	0.034	0.069	-0.065	0.046	24
25	5.0	1.330	0.426	0.184	0.004	-0.084	0.030	0.032	0.007	0.014	0.019	0.020	0.013	0.027	0.006	0.034	0.070	-0.066	0.048	25
26	15.0	1.328	0.426	0.184	0.004	-0.084	0.030	0.033	0.007	0.014	0.019	0.020	0.014	0.027	0.006	0.034	0.069	-0.066	0.048	26
27	25.0	1.331	0.426	0.184	0.003	-0.083	0.030	0.033	0.008	0.011	0.017	0.019	0.015	0.027	0.007	0.033	0.067	-0.066	0.045	27
28	35.0	1.330	0.426	0.184	0.003	-0.083	0.031	0.034	0.011	0.007	0.012	0.015	0.018	0.028	0.010	0.031	0.064	-0.063	0.037	28
29	45.0	1.329	0.425	0.182	0.000	-0.082	0.029	0.035	0.014	0.001	0.008	0.009	0.020	0.028	0.012	0.038	0.059	-0.063	0.018	29
30	54.9	1.329	0.426	0.182	0.000	-0.080	0.019	0.037	0.020	0.006	0.003	0.008	0.027	0.031	0.015	0.031	0.050	-0.059	0.000	30
31	64.9	1.329	0.428	0.182	0.002	-0.080	0.010	0.039	0.026	0.015	0.003	0.007	0.033	0.033	0.019	0.034	0.041	-0.054	0.025	31
32	74.9	1.330	0.429	0.182	0.002	-0.080	0.011	0.041	0.028	0.018	0.005	0.007	0.035	0.034	0.020	0.032	0.038	-0.052	0.030	32
33	84.9	1.330	0.430	0.181	0.002	-0.082	0.002	0.042	0.033	0.025	0.008	0.005	0.037	0.035	0.021	0.038	0.031	-0.046	0.039	33
34	95.0	1.326	0.431	0.181	0.004	-0.084	0.008	0.042	0.037	0.029	0.011	0.004	0.038	0.035	0.022	0.033	0.025	-0.043	0.044	34
35	105.0	1.330	0.435	0.182	0.003	-0.085	0.009	0.043	0.044	0.036	0.016	0.005	0.039	0.038	0.024	0.032	0.018	-0.037	0.044	35
36	115.0	1.332	0.438	0.182	0.005	-0.086	0.016	0.041	0.049	0.041	0.019	0.005	0.035	0.037	0.026	0.032	0.008	-0.030	0.042	36
37	125.0	1.332	0.440	0.183	0.005	-0.086	0.025	0.040	0.055	0.045	0.032	0.007	0.030	0.037	0.029	0.038	0.008	-0.030	0.042	37
38	134.9	1.332	0.443	0.184	0.006	-0.087	0.034	0.035	0.062	0.051	0.035	0.009	0.026	0.039	0.030	0.032	0.001	-0.018	0.040	38
39	144.9	1.329	0.444	0.184	0.007	-0.087	0.042	0.030	0.068	0.052	0.037	0.010	0.024	0.040	0.029	0.031	0.002	-0.014	0.037	39
40	154.9	1.330	0.447	0.187	0.007	-0.087	0.042	0.025	0.075	0.055	0.039	0.013	0.024	0.040	0.030	0.017	0.006	-0.009	0.034	40
41	164.9	1.331	0.450	0.190	0.006	-0.086	0.047	0.020	0.081	0.057	0.031	0.015	0.025	0.041	0.030	0.019	0.009	-0.005	0.032	41
42	174.9	1.333	0.452	0.191	0.004	-0.084	0.041	0.016	0.085	0.059	0.032	0.016	0.026	0.041	0.030	0.021	0.011	-0.002	0.029	42

ORIFICE

XS FT

CW

CX

CAX

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DATE 6-MAR-78 PROJECT NO PAIC-WOC

ARO, INC.

AERO DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDT AIR FORCE STATION, TENNESSEE

TEST PART MACH HX10-6 PT

TC-532 189 1.102 2.996 1400.5 654.5 556.2 1132.3 86.6

ALFA CONFIG SURVEY ALFAS PRAR

2.00 12 104 2.01 2048.3 12.718 0.000 -3.697

DATE 2-17-78 AEDC PROPUSSION WIND TUNNEL

TRANSONIC 47

PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1.340	0.456	0.193	0.002	-0.189	-0.144	-0.061	-0.017	0.020	0.030	0.027	0.024	0.016	0.001	-0.027	-0.016	-0.014	-0.039	-0.061	
2	1.337	0.455	0.191	0.002	-0.190	-0.146	-0.062	-0.016	0.017	0.027	0.028	0.028	0.028	0.015	-0.034	-0.023	-0.019	-0.036	-0.066	
3	1.332	0.453	0.191	0.001	-0.189	-0.146	-0.063	-0.017	0.016	0.026	0.027	0.028	0.028	0.015	-0.036	-0.025	-0.022	-0.039	-0.069	
4	1.336	0.455	0.193	0.001	-0.189	-0.146	-0.061	-0.017	0.016	0.026	0.028	0.028	0.028	0.013	-0.036	-0.022	-0.023	-0.041	-0.070	
5	1.339	0.457	0.194	0.001	-0.189	-0.147	-0.061	-0.016	0.015	0.023	0.028	0.027	0.027	0.011	-0.036	-0.020	-0.028	-0.043	-0.073	
6	1.335	0.456	0.192	0.001	-0.191	-0.148	-0.063	-0.019	0.014	0.020	0.025	0.022	0.022	0.002	-0.037	-0.020	-0.032	-0.050	-0.080	
7	1.338	0.458	0.194	0.002	-0.191	-0.148	-0.062	-0.019	0.015	0.019	0.026	0.020	0.020	0.002	-0.035	-0.019	-0.034	-0.052	-0.082	
8	1.337	0.459	0.194	0.002	-0.192	-0.150	-0.071	-0.020	0.014	0.017	0.023	0.014	0.014	0.008	-0.035	-0.031	-0.037	-0.056	-0.085	
9	1.333	0.457	0.193	0.001	-0.193	-0.153	-0.073	-0.022	0.012	0.014	0.019	0.009	0.009	0.016	-0.043	-0.025	-0.019	-0.042	-0.091	
10	1.334	0.459	0.195	0.001	-0.193	-0.153	-0.071	-0.021	0.013	0.014	0.019	0.009	0.009	0.016	-0.043	-0.025	-0.019	-0.042	-0.091	
11	1.334	0.462	0.197	0.002	-0.193	-0.155	-0.080	-0.022	0.006	0.011	0.016	0.006	0.006	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
12	1.336	0.465	0.200	0.001	-0.193	-0.156	-0.079	-0.022	0.002	0.009	0.015	0.010	0.010	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
13	1.337	0.468	0.201	0.001	-0.194	-0.158	-0.079	-0.024	0.006	0.005	0.011	0.010	0.010	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
14	1.337	0.469	0.204	0.001	-0.196	-0.160	-0.079	-0.026	0.004	0.003	0.007	0.007	0.007	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
15	1.334	0.470	0.205	0.001	-0.196	-0.162	-0.077	-0.027	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
16	1.336	0.472	0.207	0.002	-0.196	-0.165	-0.078	-0.028	0.002	0.000	0.003	0.003	0.003	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
17	1.339	0.474	0.209	0.002	-0.196	-0.166	-0.081	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
18	1.335	0.474	0.208	0.002	-0.197	-0.167	-0.080	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
19	1.334	0.474	0.208	0.002	-0.196	-0.168	-0.081	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
20	1.335	0.473	0.209	0.002	-0.196	-0.168	-0.081	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
21	1.336	0.472	0.207	0.001	-0.197	-0.169	-0.085	-0.037	0.001	0.000	0.000	0.000	0.000	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
22	1.339	0.472	0.207	0.001	-0.196	-0.168	-0.081	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
23	1.338	0.470	0.203	0.001	-0.197	-0.167	-0.081	-0.031	0.001	0.001	0.001	0.001	0.001	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
24	1.339	0.467	0.201	0.001	-0.197	-0.165	-0.085	-0.039	0.001	0.006	0.003	0.003	0.003	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
25	1.333	0.464	0.197	0.001	-0.196	-0.163	-0.085	-0.030	0.001	0.007	0.008	0.008	0.008	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
26	1.336	0.462	0.196	0.001	-0.195	-0.160	-0.081	-0.028	0.003	0.012	0.013	0.013	0.013	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
27	1.335	0.461	0.195	0.001	-0.194	-0.157	-0.082	-0.027	0.010	0.014	0.017	0.017	0.017	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
28	1.337	0.461	0.195	0.002	-0.193	-0.155	-0.081	-0.025	0.016	0.018	0.021	0.021	0.021	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
29	1.335	0.458	0.193	0.001	-0.192	-0.152	-0.080	-0.024	0.020	0.022	0.025	0.025	0.025	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
30	1.338	0.457	0.193	0.001	-0.191	-0.150	-0.079	-0.023	0.021	0.023	0.026	0.026	0.026	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
31	1.335	0.456	0.192	0.001	-0.191	-0.148	-0.079	-0.022	0.021	0.025	0.028	0.028	0.028	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
32	1.337	0.456	0.192	0.001	-0.191	-0.148	-0.079	-0.022	0.020	0.025	0.030	0.030	0.030	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
33	1.340	0.457	0.192	0.001	-0.191	-0.148	-0.079	-0.020	0.020	0.025	0.030	0.030	0.030	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
34	1.338	0.454	0.191	0.001	-0.191	-0.148	-0.079	-0.020	0.018	0.027	0.031	0.031	0.031	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
35	1.336	0.453	0.190	0.001	-0.192	-0.149	-0.080	-0.020	0.016	0.026	0.031	0.031	0.031	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
36	1.338	0.454	0.190	0.001	-0.191	-0.147	-0.079	-0.018	0.016	0.029	0.033	0.033	0.033	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	
37	1.337	0.453	0.191	0.001	-0.191	-0.146	-0.079	-0.017	0.016	0.029	0.033	0.033	0.033	0.016	-0.044	-0.026	-0.020	-0.046	-0.094	

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	-0.1312	-0.1903	-0.0826	0.1116	0.3490	0.2738	0.0512	0.6683	0.4804
CY	-0.0025	0.0078	0.0094	0.0258	0.0793	0.2043	0.0661	-0.0104	-0.0368
CAX	4.7723	2.4122	-0.0128	-0.6397	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	0.6269	1.1742	1.4315	0.5076	-1.1901	0.0120	0.6161	0.7456	0.6802
CY	0.0357	0.1608	0.2784	0.1769	-0.0874	-0.0874	0.0137	0.0440	0.0816
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.181	0.024	0.246	-0.243	CLN	CLN	CLN	CLN	CLN



DATE 6-MAR-78 PROJECT NO PAIC-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 10.0-6 PT

TC-932 191 1.099 3.001 1403.3 P 657.7 536.5 1130.5 VI 86.7

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 101 ALPHA 4.99 PRAR 2048.6 X 11.218 Y 0.000 Z -2.297

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
8	-174.9	1.330	0.501	0.244	0.049	-0.133	-0.028	0.078	0.119	0.090	0.131	0.153	0.143	0.129	0.100	0.073	0.056	0.060	0.087	0.064
9	-164.9	1.330	0.501	0.245	0.050	-0.138	-0.030	0.080	0.122	0.091	0.133	0.154	0.144	0.130	0.104	0.076	0.057	0.059	0.087	0.065
10	-155.0	1.332	0.498	0.242	0.047	-0.142	-0.034	0.079	0.123	0.091	0.134	0.153	0.143	0.129	0.104	0.075	0.056	0.058	0.085	0.063
11	-144.9	1.331	0.494	0.237	0.045	-0.142	-0.038	0.090	0.121	0.091	0.132	0.152	0.142	0.128	0.103	0.072	0.054	0.059	0.084	0.061
12	-135.1	1.333	0.492	0.234	0.043	-0.142	-0.039	0.090	0.119	0.093	0.137	0.153	0.142	0.128	0.101	0.069	0.052	0.060	0.083	0.059
13	-125.0	1.332	0.495	0.230	0.039	-0.140	-0.040	0.100	0.113	0.093	0.137	0.152	0.141	0.126	0.096	0.064	0.047	0.062	0.082	0.056
14	-115.1	1.332	0.482	0.226	0.037	-0.137	-0.040	0.099	0.108	0.094	0.136	0.152	0.140	0.124	0.093	0.060	0.044	0.065	0.081	0.054
15	-105.0	1.330	0.475	0.221	0.035	-0.131	-0.038	0.099	0.099	0.093	0.135	0.150	0.138	0.122	0.088	0.054	0.038	0.070	0.080	0.051
16	-95.0	1.328	0.470	0.218	0.034	-0.120	-0.031	0.099	0.090	0.096	0.142	0.150	0.137	0.120	0.084	0.048	0.035	0.076	0.080	0.049
17	-85.0	1.333	0.467	0.215	0.034	-0.099	-0.013	0.086	0.074	0.096	0.146	0.150	0.136	0.116	0.075	0.036	0.030	0.087	0.082	0.046
18	-74.9	1.331	0.462	0.213	0.034	-0.074	0.006	0.067	0.057	0.097	0.149	0.148	0.134	0.112	0.063	0.074	0.025	0.096	0.083	0.045
19	-65.0	1.331	0.461	0.213	0.035	-0.055	0.020	0.054	0.045	0.098	0.153	0.148	0.134	0.109	0.055	0.016	0.025	0.103	0.085	0.043
20	-54.9	1.330	0.459	0.213	0.037	-0.029	0.051	0.031	0.025	0.090	0.153	0.146	0.131	0.104	0.043	0.004	0.024	0.115	0.090	0.043
21	-45.0	1.331	0.459	0.214	0.040	-0.003	0.094	0.008	0.004	0.081	0.152	0.145	0.130	0.100	0.020	-0.008	0.027	0.128	0.095	0.044
22	-35.1	1.332	0.458	0.215	0.043	0.016	0.104	-0.013	-0.010	0.074	0.152	0.142	0.129	0.097	0.011	-0.018	0.031	0.139	0.100	0.045
23	-25.1	1.329	0.457	0.217	0.045	0.038	0.091	-0.036	-0.032	0.060	0.149	0.136	0.127	0.091	0.003	-0.029	0.037	0.152	0.104	0.045
24	-15.1	1.331	0.456	0.219	0.048	0.057	0.081	-0.048	-0.026	0.054	0.142	0.128	0.127	0.089	0.003	-0.036	0.048	0.164	0.108	0.047
25	-5.0	1.327	0.456	0.220	0.050	0.078	0.044	-0.065	-0.031	0.051	0.131	0.117	0.125	0.086	-0.015	-0.042	0.053	0.170	0.110	0.046
26	5.0	1.330	0.457	0.220	0.050	0.077	0.081	-0.066	-0.030	0.050	0.119	0.114	0.126	0.087	-0.027	-0.044	0.061	0.179	0.115	0.049
27	15.0	1.328	0.456	0.220	0.050	0.077	0.081	-0.066	-0.030	0.050	0.119	0.114	0.126	0.087	-0.027	-0.044	0.061	0.179	0.115	0.049
28	25.0	1.328	0.457	0.220	0.049	0.067	0.086	-0.064	-0.017	0.050	0.128	0.125	0.128	0.089	-0.031	-0.040	0.057	0.173	0.112	0.050
29	35.0	1.329	0.457	0.217	0.046	0.041	0.077	-0.041	-0.009	0.056	0.133	0.141	0.131	0.094	-0.009	-0.033	0.043	0.162	0.110	0.049
30	45.0	1.328	0.457	0.215	0.042	0.017	0.091	-0.027	0.000	0.065	0.130	0.150	0.131	0.099	0.003	-0.025	0.029	0.150	0.106	0.049
31	54.9	1.329	0.457	0.213	0.038	-0.007	0.095	-0.005	0.014	0.072	0.127	0.154	0.133	0.103	0.003	-0.015	0.020	0.139	0.103	0.049
32	64.9	1.330	0.460	0.213	0.037	-0.032	0.081	0.010	0.031	0.079	0.128	0.155	0.134	0.107	0.030	-0.005	0.017	0.129	0.100	0.050
33	74.9	1.331	0.462	0.213	0.036	-0.055	0.063	0.031	0.047	0.082	0.125	0.156	0.135	0.110	0.043	0.004	0.017	0.120	0.098	0.051
34	84.9	1.332	0.466	0.216	0.036	-0.079	0.046	0.045	0.040	0.084	0.125	0.156	0.137	0.114	0.055	0.015	0.020	0.112	0.096	0.053
35	95.0	1.330	0.470	0.217	0.038	-0.097	0.034	0.057	0.049	0.085	0.127	0.155	0.137	0.117	0.065	0.023	0.023	0.105	0.094	0.054
36	105.0	1.329	0.474	0.220	0.035	-0.111	0.022	0.069	0.080	0.086	0.129	0.155	0.138	0.118	0.073	0.033	0.027	0.096	0.094	0.056
37	114.0	1.330	0.478	0.222	0.037	-0.121	0.011	0.069	0.080	0.087	0.133	0.154	0.138	0.121	0.079	0.040	0.032	0.089	0.092	0.057
38	125.0	1.334	0.485	0.226	0.039	-0.130	-0.000	0.079	0.095	0.088	0.126	0.154	0.139	0.124	0.086	0.046	0.036	0.082	0.093	0.061
39	134.9	1.334	0.491	0.231	0.041	-0.136	-0.014	0.088	0.104	0.090	0.128	0.154	0.140	0.126	0.092	0.056	0.042	0.074	0.092	0.063
40	144.9	1.332	0.494	0.234	0.043	-0.138	-0.021	0.087	0.108	0.089	0.128	0.154	0.141	0.127	0.096	0.061	0.045	0.069	0.091	0.064
41	154.9	1.331	0.497	0.238	0.045	-0.140	-0.025	0.087	0.114	0.089	0.126	0.155	0.142	0.129	0.100	0.067	0.048	0.064	0.090	0.065
42	164.9	1.330	0.500	0.241	0.046	-0.141	-0.027	0.088	0.117	0.090	0.128	0.154	0.143	0.129	0.102	0.071	0.052	0.062	0.089	0.066
43	174.9	1.329	0.501	0.245	0.048	-0.141	-0.028	0.088	0.118	0.091	0.134	0.154	0.143	0.130	0.103	0.073	0.055	0.060	0.087	0.065

ORIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0378	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	0.2943	0.2769	-0.0077	-3.3164	-2.0097	2.2808	2.3750	0.5265	-0.0906
CYX	0.0070	0.0133	-0.0160	-0.3408	-0.7164	0.5605	0.2460	0.2098	0.3132
CAX	4.8917	2.7325	0.3782	-0.2169	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	0.3047	0.2510	0.6597	1.8708	1.8285	0.1726	-1.7421	-0.3547	0.3035
CYX	-0.0675	-0.0033	0.0407	0.3530	0.3333	0.1202	-0.4339	-0.2315	-0.0974
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CM 0.112 CY 0.007 CA 0.281 CLW -0.182 CLW 0.005

DATE 6-MAR-78 PROJECT NO PAIC-NOC

AEO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REK10-6 PT

TC-532 192 1.100 3.004 1405.2 658.1 537.4 1131.1 86.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY PRAP X Y Z  
5.00 12 102 4.99 2048.5 11.218 0.000 -2.947

PMT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.327	0.511	0.249	0.048	-0.144	-0.053	0.030	0.146	0.109	0.119	0.153	0.150	0.137	0.117	0.098	0.073	0.060	0.070	0.068
2	174.9	1.328	0.510	0.249	0.048	-0.147	-0.060	0.021	0.149	0.113	0.119	0.154	0.151	0.139	0.120	0.101	0.077	0.059	0.067	0.068
3	164.9	1.329	0.509	0.248	0.048	-0.148	-0.065	0.022	0.148	0.113	0.122	0.154	0.150	0.138	0.120	0.101	0.077	0.058	0.067	0.068
4	155.0	1.330	0.508	0.247	0.048	-0.149	-0.068	0.022	0.145	0.113	0.125	0.155	0.150	0.138	0.119	0.099	0.076	0.056	0.067	0.067
5	144.9	1.331	0.499	0.238	0.041	-0.150	-0.068	0.034	0.140	0.111	0.127	0.156	0.151	0.138	0.119	0.097	0.074	0.054	0.073	0.066
6	135.1	1.332	0.493	0.233	0.031	-0.152	-0.067	0.046	0.133	0.106	0.126	0.154	0.149	0.137	0.116	0.093	0.070	0.052	0.073	0.064
7	125.0	1.332	0.484	0.226	0.031	-0.152	-0.063	0.068	0.116	0.101	0.127	0.155	0.149	0.134	0.114	0.088	0.065	0.050	0.076	0.062
8	115.1	1.331	0.478	0.220	0.028	-0.153	-0.062	0.081	0.119	0.098	0.129	0.155	0.148	0.134	0.110	0.084	0.059	0.046	0.078	0.060
9	105.0	1.331	0.470	0.214	0.027	-0.151	-0.059	0.092	0.113	0.094	0.130	0.155	0.147	0.132	0.107	0.078	0.054	0.045	0.081	0.059
10	95.0	1.329	0.462	0.209	0.025	-0.147	-0.055	0.103	0.103	0.088	0.129	0.156	0.147	0.132	0.103	0.071	0.048	0.046	0.085	0.058
11	85.0	1.327	0.456	0.205	0.024	-0.144	-0.051	0.103	0.097	0.085	0.133	0.157	0.146	0.130	0.100	0.066	0.043	0.049	0.088	0.057
12	75.0	1.331	0.452	0.204	0.024	-0.139	-0.044	0.104	0.090	0.083	0.137	0.159	0.147	0.130	0.097	0.059	0.038	0.056	0.092	0.057
13	65.0	1.332	0.447	0.199	0.022	-0.136	-0.034	0.103	0.081	0.079	0.137	0.159	0.146	0.128	0.092	0.051	0.026	0.063	0.095	0.056
14	54.9	1.332	0.442	0.197	0.022	-0.128	-0.011	0.094	0.070	0.076	0.139	0.160	0.145	0.128	0.086	0.041	0.026	0.083	0.099	0.056
15	45.0	1.331	0.439	0.195	0.021	-0.124	0.008	0.084	0.061	0.074	0.138	0.159	0.144	0.126	0.082	0.034	0.021	0.096	0.101	0.056
16	35.1	1.329	0.436	0.195	0.023	-0.117	0.032	0.076	0.054	0.075	0.143	0.159	0.144	0.125	0.078	0.029	0.019	0.109	0.104	0.057
17	25.1	1.331	0.436	0.195	0.022	-0.114	0.044	0.076	0.050	0.074	0.142	0.160	0.144	0.125	0.076	0.026	0.018	0.116	0.106	0.058
18	15.1	1.333	0.435	0.194	0.020	-0.111	0.057	0.068	0.046	0.072	0.140	0.160	0.144	0.123	0.074	0.023	0.016	0.123	0.109	0.058
19	5.0	1.327	0.432	0.192	0.020	-0.111	0.059	0.068	0.042	0.069	0.138	0.159	0.142	0.123	0.071	0.020	0.014	0.123	0.107	0.057
20	5.0	1.326	0.433	0.193	0.023	-0.111	0.060	0.069	0.043	0.071	0.146	0.160	0.143	0.123	0.071	0.021	0.015	0.123	0.107	0.057
21	15.0	1.326	0.432	0.192	0.024	-0.113	0.053	0.068	0.045	0.070	0.143	0.160	0.142	0.123	0.072	0.021	0.016	0.119	0.107	0.057
22	24.9	1.328	0.436	0.193	0.024	-0.116	0.039	0.068	0.052	0.072	0.142	0.162	0.143	0.124	0.075	0.027	0.019	0.111	0.107	0.059
23	35.0	1.331	0.440	0.195	0.024	-0.123	0.018	0.081	0.061	0.076	0.147	0.163	0.143	0.126	0.080	0.033	0.022	0.097	0.108	0.059
24	45.0	1.328	0.440	0.195	0.023	-0.127	0.005	0.081	0.066	0.074	0.138	0.161	0.142	0.124	0.082	0.036	0.023	0.087	0.104	0.059
25	54.9	1.327	0.443	0.196	0.023	-0.133	-0.007	0.081	0.062	0.076	0.140	0.160	0.143	0.126	0.085	0.042	0.028	0.074	0.101	0.059
26	64.9	1.325	0.448	0.198	0.021	-0.139	-0.015	0.081	0.059	0.079	0.140	0.159	0.143	0.127	0.090	0.049	0.030	0.062	0.098	0.059
27	74.9	1.329	0.455	0.202	0.021	-0.142	-0.023	0.091	0.086	0.082	0.135	0.159	0.145	0.129	0.095	0.056	0.035	0.057	0.098	0.062
28	84.9	1.329	0.462	0.207	0.024	-0.145	-0.034	0.092	0.095	0.086	0.126	0.159	0.146	0.131	0.100	0.064	0.041	0.052	0.095	0.063
29	95.0	1.328	0.470	0.211	0.024	-0.148	-0.043	0.093	0.101	0.090	0.124	0.158	0.146	0.132	0.104	0.070	0.046	0.050	0.092	0.065
30	105.0	1.329	0.477	0.216	0.024	-0.150	-0.051	0.093	0.106	0.094	0.124	0.158	0.148	0.133	0.107	0.076	0.051	0.050	0.089	0.065
31	114.9	1.329	0.484	0.221	0.031	-0.151	-0.056	0.093	0.111	0.097	0.118	0.156	0.148	0.134	0.111	0.081	0.056	0.051	0.085	0.067
32	125.0	1.327	0.493	0.228	0.031	-0.151	-0.063	0.068	0.117	0.104	0.120	0.155	0.148	0.135	0.114	0.088	0.063	0.052	0.079	0.067
33	134.9	1.327	0.500	0.235	0.038	-0.150	-0.066	0.057	0.123	0.108	0.120	0.156	0.150	0.136	0.116	0.093	0.068	0.054	0.076	0.068
34	144.9	1.329	0.506	0.240	0.041	-0.149	-0.068	0.045	0.138	0.112	0.121	0.156	0.151	0.138	0.119	0.096	0.071	0.056	0.071	0.069
35	154.9	1.330	0.511	0.245	0.045	-0.148	-0.067	0.035	0.139	0.114	0.121	0.156	0.152	0.139	0.120	0.100	0.075	0.058	0.071	0.069
36	164.9	1.332	0.513	0.250	0.041	-0.147	-0.064	0.035	0.143	0.113	0.118	0.155	0.151	0.140	0.122	0.101	0.078	0.059	0.070	0.071
37	174.9	1.332	0.513	0.250	0.041	-0.147	-0.064	0.035	0.143	0.113	0.118	0.155	0.151	0.140	0.122	0.101	0.078	0.059	0.070	0.071

OPRICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0378	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	0.5172	0.6117	0.7067	-0.5635	-1.7581	-0.6766	1.5317	0.5919	-0.3906
CYX	0.0517	0.0939	0.0491	-0.0782	-0.4359	-0.0644	0.3417	0.1120	0.0026
CAX	4.8302	2.6187	0.2769	-0.4564	0.0000	0.0000	0.0000	0.0000	0.0000
OPRICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	-0.0974	0.1233	0.2384	0.7608	1.2618	0.9918	-0.9368	-0.4119	0.1990
CYX	-0.0443	0.0389	0.0453	0.1365	0.2349	0.1987	-0.1542	-0.1973	-0.0533
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CM	0.072	0.007	0.267	-0.024	0.000	0.000	0.000	0.000	0.000
CY	0.007	0.007	0.267	-0.024	0.000	0.000	0.000	0.000	0.000
CLN	0.007	0.007	0.267	-0.024	0.000	0.000	0.000	0.000	0.000



DATE 6-MAR-78 PROJECT NO P41C-H0C

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	WACH	REAL-5	PT	P	Q	VI	TT	DATE	AEDC PROPULSION WIND TUNNEL
TC-332	193	1.099	2.999	1402.9	658.0	550.1	1130.1	86.8	2-17-78	TRANSONIC 4T

ALFA	CONFIG	SURVEY	ALFAS	PRAM	X	Y	Z
5.00	12	103	4.99	2048.1	11.218	0.000	-3.697

PNT	DPMT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.329	0.514	0.248	0.044	-0.153	-0.090	0.003	0.085	0.138	0.117	0.138	0.156	0.144	0.129	0.120	0.095	0.075	0.062	0.056
3	-164.9	1.329	0.513	0.248	0.043	-0.155	-0.097	0.003	0.083	0.142	0.118	0.138	0.157	0.145	0.131	0.122	0.098	0.076	0.061	0.054
4	-155.0	1.328	0.508	0.247	0.040	-0.156	-0.101	-0.005	0.091	0.142	0.118	0.138	0.156	0.144	0.131	0.121	0.097	0.073	0.060	0.054
5	-144.9	1.329	0.503	0.238	0.036	-0.158	-0.103	-0.005	0.098	0.138	0.117	0.137	0.155	0.144	0.130	0.119	0.096	0.073	0.059	0.055
6	-135.1	1.328	0.496	0.232	0.033	-0.160	-0.103	-0.005	0.104	0.141	0.117	0.144	0.155	0.142	0.130	0.116	0.093	0.069	0.056	0.055
7	-125.0	1.331	0.488	0.227	0.029	-0.161	-0.099	-0.004	0.110	0.136	0.117	0.145	0.155	0.142	0.129	0.112	0.091	0.067	0.055	0.058
8	-115.1	1.330	0.479	0.219	0.024	-0.164	-0.098	-0.004	0.114	0.128	0.114	0.145	0.154	0.141	0.127	0.112	0.087	0.063	0.053	0.059
9	-105.0	1.329	0.469	0.212	0.020	-0.165	-0.097	-0.003	0.117	0.125	0.114	0.148	0.152	0.139	0.125	0.108	0.083	0.059	0.051	0.061
10	-95.0	1.327	0.457	0.204	0.015	-0.167	-0.088	0.007	0.116	0.121	0.113	0.149	0.151	0.138	0.123	0.104	0.078	0.054	0.051	0.061
11	-85.0	1.329	0.447	0.196	0.011	-0.168	-0.080	0.031	0.117	0.112	0.113	0.152	0.151	0.138	0.121	0.100	0.074	0.051	0.057	0.064
12	-75.0	1.328	0.438	0.190	0.008	-0.168	-0.077	0.044	0.114	0.107	0.112	0.152	0.150	0.137	0.119	0.096	0.069	0.047	0.061	0.065
13	-65.0	1.330	0.432	0.187	0.008	-0.164	-0.073	0.055	0.113	0.105	0.119	0.157	0.151	0.137	0.110	0.093	0.066	0.045	0.066	0.066
14	-55.0	1.329	0.424	0.181	0.006	-0.163	-0.070	0.076	0.111	0.098	0.132	0.157	0.149	0.136	0.116	0.088	0.061	0.042	0.076	0.067
15	-45.1	1.330	0.420	0.179	0.006	-0.159	-0.063	0.088	0.111	0.093	0.138	0.160	0.151	0.137	0.116	0.086	0.059	0.041	0.088	0.069
16	-35.1	1.329	0.415	0.176	0.005	-0.159	-0.061	0.088	0.109	0.087	0.134	0.160	0.150	0.136	0.113	0.082	0.055	0.039	0.094	0.069
17	-25.1	1.329	0.412	0.174	0.005	-0.157	-0.056	0.097	0.108	0.083	0.120	0.161	0.150	0.136	0.112	0.080	0.053	0.039	0.105	0.071
18	-15.1	1.329	0.408	0.172	0.005	-0.156	-0.053	0.097	0.105	0.079	0.121	0.162	0.150	0.135	0.111	0.077	0.050	0.039	0.105	0.071
19	-5.0	1.329	0.406	0.172	0.004	-0.154	-0.049	0.097	0.104	0.077	0.121	0.163	0.150	0.136	0.111	0.076	0.048	0.039	0.109	0.072
20	5.0	1.326	0.405	0.171	0.005	-0.153	-0.048	0.098	0.103	0.076	0.123	0.164	0.149	0.135	0.110	0.075	0.048	0.039	0.110	0.072
21	15.0	1.325	0.406	0.172	0.005	-0.153	-0.047	0.098	0.103	0.077	0.128	0.164	0.150	0.135	0.110	0.075	0.048	0.039	0.110	0.072
22	25.0	1.326	0.407	0.171	0.005	-0.153	-0.050	0.098	0.104	0.080	0.137	0.164	0.149	0.135	0.111	0.078	0.048	0.039	0.108	0.071
23	35.0	1.327	0.409	0.172	0.005	-0.155	-0.052	0.098	0.107	0.081	0.141	0.164	0.151	0.136	0.112	0.078	0.050	0.041	0.106	0.073
24	45.0	1.327	0.411	0.172	0.003	-0.158	-0.057	0.093	0.109	0.082	0.148	0.162	0.148	0.134	0.111	0.079	0.050	0.039	0.100	0.071
25	54.9	1.326	0.415	0.174	0.003	-0.160	-0.061	0.086	0.112	0.086	0.145	0.161	0.149	0.134	0.113	0.081	0.052	0.043	0.093	0.071
26	64.9	1.325	0.420	0.177	0.004	-0.161	-0.063	0.078	0.114	0.092	0.145	0.161	0.150	0.136	0.115	0.085	0.056	0.043	0.085	0.070
27	74.9	1.325	0.427	0.181	0.006	-0.163	-0.068	0.069	0.114	0.097	0.143	0.160	0.150	0.136	0.117	0.089	0.060	0.044	0.076	0.070
28	84.9	1.325	0.435	0.186	0.007	-0.162	-0.072	0.060	0.114	0.101	0.141	0.160	0.151	0.137	0.118	0.093	0.065	0.047	0.069	0.070
29	95.0	1.327	0.446	0.193	0.010	-0.165	-0.078	0.049	0.113	0.106	0.147	0.155	0.152	0.138	0.120	0.097	0.070	0.050	0.062	0.069
30	105.0	1.327	0.457	0.200	0.014	-0.165	-0.083	0.028	0.112	0.111	0.147	0.152	0.153	0.139	0.122	0.102	0.075	0.054	0.058	0.067
31	114.9	1.326	0.468	0.208	0.018	-0.164	-0.089	0.016	0.111	0.115	0.146	0.157	0.153	0.141	0.124	0.106	0.081	0.059	0.057	0.066
32	125.0	1.326	0.478	0.214	0.022	-0.163	-0.092	0.006	0.111	0.120	0.149	0.146	0.154	0.141	0.125	0.109	0.084	0.062	0.056	0.065
33	134.9	1.328	0.486	0.219	0.025	-0.162	-0.095	0.006	0.109	0.122	0.143	0.143	0.155	0.143	0.129	0.112	0.087	0.065	0.057	0.064
34	144.9	1.331	0.497	0.228	0.030	-0.160	-0.098	-0.002	0.107	0.130	0.143	0.144	0.157	0.143	0.129	0.116	0.091	0.068	0.058	0.063
35	154.9	1.330	0.504	0.233	0.033	-0.159	-0.101	-0.003	0.102	0.134	0.145	0.140	0.156	0.144	0.130	0.118	0.094	0.072	0.059	0.060
36	164.9	1.327	0.509	0.239	0.037	-0.156	-0.102	-0.002	0.094	0.141	0.147	0.141	0.157	0.144	0.131	0.120	0.096	0.073	0.059	0.057
37	174.9	1.330	0.514	0.244	0.041	-0.155	-0.102	-0.002	0.087	0.143	0.148	0.139	0.158	0.145	0.132	0.122	0.098	0.076	0.061	0.056

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW	0.7073	0.8261	0.5147	-0.0314	-0.8347	-1.8129	-0.1749	1.0034	-0.1242
CY	0.0780	0.2639	0.0798	-0.1516	-0.1516	-0.1516	0.0010	0.2323	0.0854
CAX	4.6937	2.4599	0.1552	-0.5792	0.0000	0.0000	0.0000	0.0000	0.0000

ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW	-0.4063	0.1183	0.3366	0.3366	0.7339	0.8024	0.5966	-0.7992	-0.2467
CY	-0.0836	0.0001	0.0141	0.0505	0.1152	0.1483	0.0601	-0.1700	-0.1122
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN	CV	CA	CLM	CLM	CLW
0.043	0.002	0.233	0.070	0.022	

DATE 8-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH HX10-6 PT

TC-532 194 1.103 2.999 1402.4 654.7 55.1 1133.2 86.8

DATE 2-17-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 104  
5.00 12

PNT	DPH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.337	0.512	0.253	0.051	-0.144	-0.096	0.001	0.049	0.093	0.105	0.108	0.096	0.078	0.058	0.062	0.062	0.044	0.028	0.000
2	-174.9	1.338	0.512	0.252	0.052	-0.144	-0.097	-0.007	0.048	0.092	0.106	0.108	0.095	0.076	0.055	0.062	0.062	0.043	0.027	-0.002
3	-164.9	1.338	0.510	0.249	0.049	-0.145	-0.100	-0.008	0.047	0.092	0.106	0.106	0.095	0.073	0.053	0.061	0.059	0.041	0.022	-0.004
4	-155.1	1.334	0.505	0.244	0.046	-0.147	-0.103	-0.008	0.046	0.091	0.104	0.103	0.092	0.070	0.050	0.061	0.057	0.038	0.022	-0.007
5	-144.9	1.333	0.501	0.240	0.043	-0.148	-0.103	-0.017	0.046	0.093	0.104	0.102	0.090	0.066	0.048	0.061	0.055	0.036	0.015	-0.009
6	-135.1	1.337	0.499	0.239	0.041	-0.150	-0.103	-0.016	0.047	0.094	0.105	0.101	0.088	0.062	0.047	0.062	0.054	0.033	0.013	-0.012
7	-125.0	1.338	0.495	0.233	0.038	-0.153	-0.103	-0.016	0.046	0.093	0.103	0.097	0.082	0.058	0.047	0.064	0.050	0.031	0.011	-0.015
8	-115.1	1.334	0.488	0.228	0.033	-0.156	-0.103	-0.024	0.045	0.090	0.101	0.092	0.073	0.051	0.046	0.063	0.047	0.027	0.003	-0.020
9	-105.0	1.337	0.485	0.225	0.032	-0.157	-0.104	-0.024	0.045	0.089	0.103	0.091	0.070	0.047	0.040	0.056	0.046	0.025	0.003	-0.022
10	-95.0	1.339	0.482	0.223	0.029	-0.159	-0.103	-0.023	0.049	0.087	0.103	0.089	0.063	0.044	0.036	0.056	0.044	0.024	0.001	-0.025
11	-85.0	1.339	0.478	0.219	0.027	-0.161	-0.103	-0.023	0.049	0.087	0.102	0.084	0.054	0.040	0.036	0.065	0.043	0.022	0.003	-0.027
12	-75.0	1.335	0.472	0.214	0.023	-0.164	-0.103	-0.024	0.051	0.087	0.099	0.079	0.046	0.036	0.036	0.075	0.064	0.039	0.019	-0.030
13	-65.0	1.335	0.469	0.213	0.022	-0.164	-0.103	-0.032	0.061	0.092	0.098	0.076	0.041	0.035	0.034	0.084	0.064	0.039	0.018	-0.031
14	-54.9	1.337	0.468	0.213	0.022	-0.165	-0.103	-0.030	0.069	0.096	0.098	0.076	0.037	0.034	0.092	0.066	0.039	0.018	0.003	-0.030
15	-45.1	1.339	0.467	0.212	0.020	-0.166	-0.103	-0.029	0.072	0.095	0.097	0.072	0.031	0.033	0.098	0.067	0.039	0.017	0.003	-0.030
16	-35.1	1.338	0.465	0.210	0.019	-0.169	-0.103	-0.030	0.071	0.092	0.094	0.067	0.025	0.030	0.101	0.067	0.036	0.016	0.013	-0.032
17	-25.1	1.332	0.461	0.208	0.017	-0.170	-0.110	-0.038	0.068	0.088	0.092	0.063	0.021	0.026	0.100	0.065	0.036	0.014	0.013	-0.032
18	-15.1	1.335	0.461	0.207	0.017	-0.171	-0.110	-0.039	0.068	0.088	0.093	0.061	0.021	0.026	0.102	0.066	0.035	0.013	0.013	-0.032
19	-5.0	1.336	0.461	0.208	0.016	-0.171	-0.110	-0.038	0.067	0.088	0.093	0.060	0.021	0.026	0.102	0.065	0.035	0.013	0.013	-0.033
20	5.0	1.331	0.459	0.206	0.016	-0.171	-0.110	-0.038	0.066	0.088	0.091	0.060	0.021	0.025	0.102	0.065	0.035	0.013	0.013	-0.034
21	15.0	1.337	0.462	0.208	0.017	-0.171	-0.110	-0.037	0.070	0.090	0.093	0.061	0.023	0.026	0.102	0.066	0.036	0.013	0.013	-0.033
22	24.9	1.333	0.461	0.207	0.016	-0.170	-0.110	-0.038	0.071	0.090	0.092	0.062	0.024	0.026	0.101	0.066	0.036	0.013	0.013	-0.033
23	35.0	1.333	0.462	0.208	0.018	-0.169	-0.109	-0.036	0.073	0.094	0.094	0.065	0.028	0.028	0.100	0.066	0.037	0.014	0.014	-0.033
24	45.0	1.336	0.466	0.210	0.019	-0.167	-0.109	-0.035	0.073	0.096	0.096	0.070	0.034	0.030	0.097	0.067	0.039	0.015	0.015	-0.033
25	54.9	1.339	0.469	0.211	0.020	-0.167	-0.109	-0.035	0.067	0.096	0.097	0.072	0.039	0.032	0.092	0.067	0.040	0.017	0.017	-0.032
26	64.9	1.337	0.472	0.213	0.021	-0.166	-0.109	-0.026	0.058	0.093	0.098	0.076	0.045	0.033	0.084	0.067	0.040	0.018	0.018	-0.032
27	74.9	1.336	0.475	0.216	0.023	-0.164	-0.109	-0.025	0.054	0.090	0.099	0.079	0.050	0.036	0.077	0.067	0.042	0.020	0.020	-0.030
28	84.9	1.334	0.478	0.217	0.026	-0.162	-0.109	-0.024	0.051	0.087	0.098	0.081	0.054	0.038	0.065	0.067	0.043	0.022	0.022	-0.028
29	95.0	1.335	0.483	0.222	0.029	-0.159	-0.109	-0.024	0.051	0.089	0.100	0.086	0.061	0.043	0.057	0.067	0.046	0.025	0.025	-0.024
30	105.0	1.335	0.489	0.226	0.032	-0.157	-0.109	-0.023	0.051	0.091	0.101	0.090	0.068	0.048	0.051	0.067	0.046	0.028	0.028	-0.021
31	114.9	1.336	0.494	0.230	0.035	-0.155	-0.107	-0.023	0.051	0.093	0.103	0.094	0.073	0.053	0.049	0.067	0.050	0.030	0.030	-0.017
32	125.0	1.338	0.500	0.236	0.039	-0.153	-0.109	-0.022	0.050	0.095	0.104	0.098	0.080	0.057	0.048	0.065	0.052	0.033	0.033	-0.014
33	134.9	1.337	0.503	0.240	0.041	-0.151	-0.109	-0.023	0.049	0.094	0.105	0.101	0.084	0.062	0.048	0.064	0.054	0.035	0.035	-0.011
34	144.9	1.335	0.506	0.243	0.043	-0.149	-0.109	-0.014	0.049	0.093	0.105	0.102	0.089	0.064	0.047	0.061	0.054	0.037	0.037	-0.009
35	154.9	1.335	0.508	0.247	0.046	-0.147	-0.109	-0.013	0.049	0.093	0.106	0.105	0.092	0.066	0.047	0.058	0.055	0.037	0.037	-0.008
36	164.9	1.337	0.511	0.251	0.049	-0.145	-0.097	-0.013	0.050	0.094	0.107	0.108	0.096	0.069	0.049	0.058	0.057	0.038	0.038	-0.006
37	174.9	1.337	0.511	0.251	0.049	-0.145	-0.097	-0.013	0.050	0.094	0.107	0.108	0.096	0.069	0.049	0.058	0.057	0.038	0.038	-0.006

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CNX	0.3245	0.4677	0.4607	0.3946	0.1482	0.4167	-0.3830	0.0327	0.2046
CYX	0.0400	0.0774	0.0883	0.0807	0.0620	0.1064	-0.1071	-0.0265	0.0478
CAX	4.9879	2.7414	0.2750	-0.5268	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CNX	0.7108	1.1928	-0.7301	-0.9398	-0.7092	0.3651	0.4349	0.5787	0.4578
CYX	0.1401	0.1976	0.1584	-0.1689	-0.0447	0.0436	0.0682	0.0190	0.0862
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 0.166 CV 0.026 CA 0.273 CLW -0.016 CLN 0.007



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH HX10-6 PT P 657.8 559.0 1134.5 98.6 DATE 2-16-78 AEDC PROPULSION WIND TUNNEL TRANSONIC 47

TC-532 104 1.102 2.997 1407.7 1407.7 657.8 559.0 1134.5 98.6

ALFA CONFIG 13 SURVEY 101

ALFA 0.00

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7	-174.9	1.338	0.429	0.171	-0.015	-0.194	-0.108	-0.043	0.089	0.085	0.023	-0.031	-0.066	-0.102	-0.139	-0.153	-0.152	-0.177	-0.184	-0.219
8	-164.9	1.335	0.431	0.168	-0.018	-0.177	-0.116	-0.052	0.087	0.086	0.023	-0.031	-0.065	-0.101	-0.135	-0.148	-0.145	-0.177	-0.185	-0.220
9	-155.0	1.337	0.436	0.172	-0.016	-0.176	-0.119	-0.050	0.082	0.085	0.020	-0.033	-0.067	-0.106	-0.138	-0.149	-0.143	-0.180	-0.188	-0.222
10	-144.9	1.337	0.445	0.177	-0.013	-0.176	-0.124	-0.061	0.074	0.076	0.009	-0.042	-0.077	-0.119	-0.147	-0.148	-0.153	-0.190	-0.200	-0.227
11	-135.1	1.335	0.451	0.182	-0.010	-0.174	-0.124	-0.061	0.071	0.070	0.003	-0.048	-0.081	-0.122	-0.154	-0.145	-0.160	-0.195	-0.209	-0.234
12	-125.0	1.335	0.459	0.189	-0.005	-0.171	-0.123	-0.061	0.069	0.060	-0.010	-0.058	-0.094	-0.133	-0.162	-0.148	-0.171	-0.206	-0.224	-0.229
13	-115.1	1.337	0.472	0.201	0.005	-0.185	-0.120	-0.059	0.066	0.047	-0.023	-0.069	-0.108	-0.146	-0.164	-0.148	-0.186	-0.224	-0.249	-0.227
14	-105.0	1.336	0.480	0.208	0.011	-0.181	-0.119	-0.059	0.064	0.035	-0.035	-0.079	-0.120	-0.151	-0.165	-0.152	-0.200	-0.240	-0.270	-0.227
15	-95.0	1.336	0.493	0.221	0.021	-0.174	-0.113	-0.057	0.058	0.016	-0.054	-0.098	-0.136	-0.174	-0.161	-0.165	-0.226	-0.274	-0.316	-0.227
16	-85.0	1.336	0.503	0.232	0.030	-0.170	-0.108	-0.057	0.048	0.008	-0.075	-0.117	-0.152	-0.189	-0.157	-0.184	-0.257	-0.311	-0.329	-0.225
17	-74.8	1.337	0.511	0.242	0.039	-0.164	-0.101	-0.052	0.022	-0.033	-0.097	-0.138	-0.168	-0.191	-0.156	-0.208	-0.290	-0.334	-0.320	-0.210
18	-65.0	1.341	0.520	0.254	0.050	-0.157	-0.091	0.040	0.019	-0.055	-0.117	-0.159	-0.186	-0.192	-0.158	-0.232	-0.325	-0.370	-0.320	-0.211
19	-54.9	1.337	0.524	0.263	0.060	-0.149	-0.080	0.035	0.003	-0.077	-0.135	-0.183	-0.217	-0.177	-0.166	-0.266	-0.371	-0.403	-0.363	-0.263
20	-45.0	1.337	0.526	0.272	0.068	-0.144	-0.069	0.039	0.003	-0.083	-0.155	-0.196	-0.236	-0.159	-0.184	-0.308	-0.403	-0.423	-0.373	-0.263
21	-35.1	1.339	0.528	0.279	0.077	-0.136	-0.040	0.050	0.001	-0.104	-0.183	-0.194	-0.241	-0.128	-0.208	-0.340	-0.404	-0.435	-0.395	-0.263
22	-25.1	1.339	0.525	0.277	0.081	-0.131	0.032	0.091	-0.007	-0.115	-0.172	-0.156	-0.217	-0.128	-0.239	-0.390	-0.422	-0.450	-0.400	-0.263
23	-15.0	1.338	0.520	0.273	0.080	-0.130	0.086	0.080	-0.026	-0.123	-0.177	-0.106	-0.223	-0.128	-0.254	-0.415	-0.458	-0.480	-0.420	-0.263
24	-5.0	1.338	0.515	0.268	0.080	-0.128	0.091	0.070	-0.029	-0.120	-0.184	-0.099	-0.286	-0.125	-0.255	-0.429	-0.477	-0.500	-0.440	-0.263
25	5.0	1.339	0.507	0.260	0.075	-0.129	0.064	0.071	-0.031	-0.118	-0.166	-0.151	-0.210	-0.128	-0.249	-0.431	-0.480	-0.503	-0.443	-0.263
26	15.0	1.339	0.497	0.250	0.067	-0.132	-0.003	0.083	0.020	-0.111	-0.152	-0.170	-0.218	-0.128	-0.231	-0.406	-0.457	-0.480	-0.420	-0.263
27	24.9	1.340	0.486	0.238	0.057	-0.137	-0.040	0.084	0.003	-0.100	-0.153	-0.179	-0.222	-0.119	-0.200	-0.365	-0.402	-0.430	-0.370	-0.263
28	35.0	1.338	0.476	0.228	0.049	-0.141	-0.049	0.095	0.003	-0.087	-0.142	-0.181	-0.219	-0.118	-0.173	-0.330	-0.422	-0.454	-0.394	-0.263
29	45.0	1.337	0.465	0.215	0.036	-0.148	-0.060	0.101	0.001	-0.069	-0.128	-0.170	-0.205	-0.121	-0.144	-0.280	-0.407	-0.430	-0.386	-0.263
30	54.9	1.340	0.457	0.204	0.026	-0.154	-0.067	0.113	0.021	-0.048	-0.108	-0.148	-0.180	-0.128	-0.118	-0.240	-0.362	-0.390	-0.340	-0.263
31	64.9	1.340	0.450	0.195	0.018	-0.160	-0.073	0.104	0.031	-0.028	-0.089	-0.129	-0.160	-0.138	-0.108	-0.209	-0.325	-0.356	-0.306	-0.263
32	74.9	1.339	0.442	0.187	0.009	-0.166	-0.080	0.094	0.050	-0.009	-0.071	-0.110	-0.143	-0.141	-0.102	-0.180	-0.286	-0.315	-0.263	-0.263
33	84.9	1.339	0.436	0.180	0.003	-0.170	-0.083	0.094	0.065	0.012	-0.051	-0.091	-0.127	-0.148	-0.098	-0.150	-0.257	-0.286	-0.237	-0.217
34	95.0	1.336	0.428	0.172	0.006	-0.177	-0.090	0.095	0.078	0.026	-0.035	-0.076	-0.117	-0.148	-0.098	-0.140	-0.232	-0.264	-0.210	-0.216
35	105.0	1.337	0.425	0.168	-0.010	-0.181	-0.094	0.094	0.091	0.043	-0.019	-0.063	-0.108	-0.138	-0.099	-0.129	-0.211	-0.240	-0.195	-0.216
36	115.0	1.337	0.422	0.164	-0.014	-0.185	-0.099	0.092	0.100	0.060	-0.002	-0.050	-0.096	-0.126	-0.103	-0.121	-0.199	-0.214	-0.165	-0.215
37	125.0	1.339	0.420	0.161	-0.017	-0.189	-0.102	0.092	0.105	0.070	0.008	-0.043	-0.088	-0.118	-0.107	-0.118	-0.175	-0.217	-0.166	-0.215
38	134.9	1.337	0.418	0.158	-0.022	-0.192	-0.106	0.092	0.104	0.074	0.013	-0.040	-0.095	-0.113	-0.113	-0.120	-0.170	-0.208	-0.140	-0.217
39	144.9	1.335	0.418	0.157	-0.022	-0.194	-0.108	0.090	0.105	0.082	0.030	-0.033	-0.090	-0.110	-0.110	-0.122	-0.161	-0.195	-0.126	-0.216
40	154.9	1.337	0.419	0.157	-0.023	-0.196	-0.110	0.090	0.102	0.087	0.035	-0.029	-0.089	-0.098	-0.119	-0.120	-0.154	-0.186	-0.114	-0.217
41	164.9	1.336	0.418	0.156	-0.026	-0.199	-0.114	0.091	0.098	0.087	0.038	-0.029	-0.085	-0.098	-0.123	-0.133	-0.151	-0.172	-0.104	-0.219
42	174.9	1.335	0.421	0.158	-0.024	-0.199	-0.115	0.099	0.094	0.090	0.027	-0.028	-0.082	-0.097	-0.126	-0.136	-0.147	-0.179	-0.103	-0.219

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	-0.5716	-1.1570	-1.3398	-1.0712	-2.0341	-2.4514	-1.8616	-3.4091	-3.2355
CYK	0.4325	0.6035	0.4140	0.3442	-0.2258	-0.8214	-0.4313	-0.3079	-0.4043
CAX	4.8118	2.5288	0.1775	-0.5580	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4162	0.4440	0.4718	0.4995
CXK	2.3534	2.7253	0.4778	1.3871	4.1453	3.4322	0.3581	-0.6964	-0.3814
CYK	-0.3242	-0.3392	-0.6023	-0.6023	-0.4663	-0.1318	0.2007	0.2515	-0.0311
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CV 0.07

CLM 0.95

CLN

DATE 6-MAR-78 PROJECT NO P41C-W0C

Y ARO, INC.

AEC DIVISION

A SPERDUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNDT AIR FORCE STATION, TENNESSEE

TEST PART MACH 1.100

TC-532 106 2.996 1407.5

PT P 659.0 558.4 1133.2

FF 89.7

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIG SURVEY

102

PRAR 2846.9

X 11.967

Y 3.500

Z -1.950

PNT DPHT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.334 0.429 0.164-0.023-0.202-0.126-0.054 0.067 0.114 0.058 0.012-0.028-0.065-0.104-0.133-0.150-0.145-0.186

1.331 0.429 0.165-0.023-0.202-0.130-0.054 0.060 0.116 0.060 0.016-0.024-0.060-0.098-0.131-0.149-0.138-0.180

1.334 0.435 0.169-0.020-0.200-0.132-0.054 0.052 0.116 0.058 0.015-0.025-0.062-0.097-0.135-0.150-0.131-0.186

1.331 0.439 0.172-0.017-0.199-0.134-0.053 0.044 0.111 0.053 0.009-0.030-0.068-0.109-0.142-0.151-0.128-0.188

1.331 0.445 0.179-0.015-0.195-0.134-0.052 0.043 0.107 0.048 0.003-0.034-0.075-0.108-0.148-0.159-0.123-0.196

1.334 0.453 0.185-0.008-0.193-0.134-0.051 0.044 0.099 0.040-0.003-0.040-0.084-0.111-0.156-0.148-0.126-0.207

1.330 0.458 0.188-0.005-0.191-0.135-0.054 0.046 0.090 0.031-0.013-0.049-0.094-0.130-0.162-0.159-0.132-0.221

1.332 0.468 0.196 0.002-0.187-0.134-0.053 0.060 0.080 0.022-0.023-0.060-0.106-0.138-0.163-0.150-0.140-0.239

1.331 0.476 0.205 0.009-0.181-0.131-0.051 0.075 0.072 0.013-0.032-0.071-0.115-0.149-0.158-0.154-0.204-0.253

1.331 0.483 0.212 0.015-0.178-0.130-0.053 0.084 0.055 0.000-0.047-0.087-0.125-0.167-0.153-0.154-0.179-0.263

1.334 0.492 0.222 0.024-0.171-0.125-0.041 0.087 0.045 0.000-0.058-0.098-0.126-0.175-0.146-0.173-0.198-0.252

1.332 0.496 0.226 0.029-0.166-0.122-0.040 0.084 0.037 0.017-0.056-0.107-0.128-0.176-0.144-0.181-0.211-0.266-0.234

1.332 0.499 0.232 0.033-0.163-0.119-0.040 0.078 0.039 0.027-0.078-0.121-0.141-0.174-0.144-0.193-0.231-0.286-0.217

1.332 0.502 0.238 0.040-0.157-0.114 0.033 0.074 0.032 0.037-0.089-0.131-0.161-0.167-0.145-0.207-0.250-0.297-0.202

1.333 0.503 0.243 0.044-0.155-0.110 0.062 0.074 0.017 0.046-0.098-0.141-0.182-0.158-0.148-0.212-0.270-0.300-0.256-0.189

1.335 0.504 0.243 0.046-0.152-0.109 0.082 0.076 0.011 0.055-0.109-0.159-0.212-0.145-0.155-0.232-0.300-0.300-0.256-0.189

1.334 0.499 0.239 0.044-0.152-0.109 0.092 0.078 0.009 0.058-0.115-0.165-0.226-0.136-0.159-0.239-0.300-0.300-0.256-0.189

1.333 0.496 0.235 0.043-0.152-0.105 0.106 0.081 0.009 0.058-0.118-0.171-0.232-0.138-0.160-0.240-0.311-0.325-0.185

1.333 0.491 0.230 0.039-0.151-0.098 0.117 0.082 0.010 0.056-0.117-0.174-0.231-0.134-0.156-0.238-0.311-0.322-0.186

1.334 0.484 0.223 0.033-0.157-0.096 0.117 0.082 0.012 0.053-0.114-0.165-0.222-0.126-0.150-0.236-0.311-0.320-0.189

1.335 0.476 0.214 0.025-0.162-0.095 0.106 0.083 0.018 0.045-0.104-0.157-0.200-0.130-0.137-0.227-0.303-0.303-0.285-0.193

1.334 0.470 0.209 0.020-0.165-0.095 0.095 0.084 0.024 0.037-0.093-0.138-0.180-0.132-0.126-0.218-0.291-0.309-0.196

1.333 0.461 0.199 0.012-0.171-0.098 0.060 0.085 0.032 0.027-0.082-0.123-0.150-0.135-0.114-0.265-0.271-0.323-0.205

1.332 0.453 0.191 0.005-0.176-0.101 0.031 0.088 0.039 0.020-0.073-0.114-0.126-0.135-0.105-0.191-0.253-0.216

1.335 0.448 0.185-0.001-0.181-0.104 0.005 0.093 0.043 0.008-0.061-0.105-0.107-0.136-0.100-0.174-0.237-0.278-0.259

1.332 0.441 0.179-0.006-0.185-0.107-0.008 0.099 0.039 0.003-0.039-0.091-0.097-0.139-0.099-0.160-0.220-0.278-0.259

1.335 0.437 0.175-0.011-0.188-0.109-0.028 0.109 0.031 0.015-0.036-0.078-0.095-0.138-0.101-0.177-0.203-0.257-0.272

1.335 0.433 0.170-0.015-0.191-0.112-0.037 0.114 0.080 0.026-0.050-0.061-0.092-0.132-0.104-0.186-0.203-0.257-0.270

1.334 0.428 0.164-0.020-0.197-0.116-0.038 0.116 0.086 0.034-0.056-0.067-0.087-0.124-0.111-0.130-0.177-0.221-0.258

1.332 0.424 0.161-0.024-0.200-0.118-0.046 0.116 0.094 0.044-0.066-0.047-0.078-0.115-0.124-0.165-0.203-0.239

1.331 0.421 0.158-0.025-0.201-0.119-0.045 0.112 0.100 0.050 0.002-0.031-0.071-0.104-0.117-0.151-0.188-0.223

1.330 0.419 0.157-0.028-0.203-0.121-0.044 0.108 0.104 0.054 0.008-0.032-0.065-0.098-0.119-0.131-0.154-0.176-0.210

1.335 0.421 0.157-0.027-0.204-0.122-0.044 0.103 0.109 0.059 0.013-0.025-0.059-0.093-0.120-0.123-0.150-0.164-0.198

1.333 0.418 0.154-0.030-0.207-0.125-0.054 0.094 0.110 0.060 0.015-0.028-0.057-0.092-0.122-0.129-0.143-0.154-0.190

1.331 0.419 0.156-0.029-0.206-0.125-0.053 0.088 0.114 0.062 0.018-0.028-0.056-0.091-0.123-0.134-0.145-0.144-0.183

1.330 0.421 0.156-0.028-0.205-0.126-0.051 0.080 0.117 0.063 0.020-0.021-0.054-0.090-0.124-0.139-0.143-0.137-0.179

ORIFICE

X5 FT 0.0278 0.0555

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CYX 0.3048 0.4482

CAX 4.7253 2.3590

ORIFICE

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CYX -0.1234 -0.0878

CAX 0.0000 0.0000

CN 0.336 -0.027

CA 0.246

CLM -1.092

CLN 0.043



DATE 6-MAR-78 PROJECT NO P41C-NOC

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARHOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH

TC-532 107 1.101

2.999 1408.7

PT P

559.1 559.1

VI 1133.5

TP 88.6

DATE

2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 103

0.00 13

ALFA 0.02

PRAR 2047.1

X 11.967

Y 3.500

Z -2.700

PNT DPHI

1 1.331 0.429 0.163 0.034 0.204 0.053 0.036 0.126 0.091 0.051 0.009 0.032 0.071 0.103 0.133 0.142 0.113 0.138

2 -174.9 1.330 0.429 0.164 0.034 0.204 0.053 0.029 0.127 0.093 0.055 0.013 0.027 0.086 0.099 0.129 0.140 0.107 0.132

3 -164.9 1.331 0.436 0.168 0.034 0.204 0.053 0.029 0.128 0.092 0.052 0.009 0.030 0.087 0.101 0.131 0.133 0.106 0.133

4 -155.0 1.329 0.437 0.171 0.030 0.201 0.059 0.024 0.124 0.088 0.049 0.005 0.034 0.072 0.100 0.136 0.126 0.106 0.137

5 -144.9 1.331 0.443 0.176 0.016 0.198 0.059 0.025 0.119 0.082 0.044 0.000 0.039 0.076 0.110 0.143 0.110 0.107 0.143

6 -135.1 1.331 0.448 0.180 0.013 0.198 0.059 0.027 0.115 0.076 0.036 0.000 0.047 0.083 0.119 0.151 0.110 0.111 0.151

7 -125.0 1.330 0.453 0.184 0.008 0.193 0.059 0.033 0.108 0.071 0.031 0.010 0.054 0.090 0.120 0.160 0.100 0.115 0.159

8 -115.1 1.332 0.461 0.192 0.003 0.189 0.059 0.042 0.103 0.065 0.025 0.021 0.061 0.090 0.130 0.167 0.098 0.120 0.169

9 -105.0 1.331 0.466 0.197 0.003 0.185 0.059 0.055 0.096 0.059 0.016 0.020 0.069 0.101 0.130 0.173 0.098 0.126 0.179

10 -95.0 1.331 0.472 0.204 0.009 0.181 0.059 0.071 0.088 0.052 0.008 0.030 0.080 0.112 0.147 0.177 0.098 0.137 0.193

11 -85.0 1.331 0.477 0.209 0.014 0.178 0.059 0.082 0.084 0.048 0.002 0.040 0.085 0.118 0.150 0.175 0.098 0.142 0.202

12 -74.9 1.331 0.482 0.215 0.018 0.173 0.059 0.091 0.080 0.043 0.005 0.053 0.093 0.120 0.160 0.169 0.100 0.154 0.215

13 -65.0 1.330 0.486 0.220 0.023 0.169 0.059 0.095 0.076 0.038 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

14 -54.9 1.333 0.489 0.224 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

15 -45.0 1.330 0.488 0.226 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

16 -35.1 1.330 0.488 0.226 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

17 -25.1 1.332 0.487 0.226 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

18 -15.1 1.332 0.486 0.224 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

19 -5.0 1.331 0.480 0.219 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

20 5.0 1.333 0.477 0.213 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

21 15.1 1.333 0.472 0.209 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

22 25.0 1.331 0.463 0.200 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

23 35.0 1.332 0.459 0.195 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

24 45.0 1.333 0.453 0.189 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

25 54.9 1.333 0.448 0.183 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

26 64.9 1.334 0.443 0.178 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

27 74.9 1.329 0.437 0.172 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

28 84.9 1.331 0.433 0.169 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

29 95.0 1.332 0.429 0.164 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

30 105.0 1.330 0.425 0.160 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

31 115.0 1.332 0.424 0.158 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

32 125.0 1.332 0.423 0.157 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

33 134.9 1.331 0.421 0.155 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

34 144.9 1.330 0.420 0.154 0.028 0.165 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

35 154.9 1.333 0.423 0.157 0.030 0.200 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

36 164.9 1.331 0.422 0.156 0.032 0.210 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

37 174.9 1.331 0.422 0.156 0.032 0.210 0.059 0.095 0.076 0.033 0.010 0.065 0.102 0.130 0.180 0.156 0.110 0.166 0.230

ORIFICE

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-37.5000

&lt;

DATE 6-MAR-78 PROJECT NO PAIC-WOC

V ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLO AIR FORCE STATION, TENNESSEE

TEST PART MACH RE310-6 PT

TC-532 108 1.103 3.002 1409.4 657.3 560.2 1135.7

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 4T

ALFA CONFIC SURVEY 104

0.00 13

PAR 2047.3

Y 3.500

Z -2.700

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2 -174.9 1.334 0.429 0.168 0.018 0.198 0.145 0.073 0.038 0.028 0.057 0.081 0.104 0.084 0.099 0.133 0.11 0.194 0.212 0.237

3 -164.9 1.337 0.434 0.170 0.018 0.197 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

4 -155.0 1.338 0.437 0.171 0.018 0.198 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

5 -144.9 1.335 0.440 0.175 0.018 0.198 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

6 -135.1 1.336 0.448 0.180 0.018 0.196 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

7 -125.0 1.338 0.457 0.187 0.018 0.195 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

8 -115.0 1.335 0.464 0.193 0.018 0.193 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

9 -105.0 1.336 0.472 0.200 0.018 0.190 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

10 -95.0 1.337 0.480 0.205 0.018 0.191 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

11 -85.0 1.337 0.488 0.213 0.018 0.189 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

12 -75.0 1.340 0.501 0.226 0.018 0.182 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

13 -65.0 1.337 0.508 0.234 0.018 0.178 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

14 -54.9 1.337 0.515 0.241 0.018 0.175 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

15 -45.0 1.340 0.521 0.250 0.018 0.172 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

16 -35.1 1.339 0.524 0.254 0.018 0.170 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

17 -25.1 1.338 0.524 0.254 0.018 0.170 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

18 -15.0 1.338 0.525 0.261 0.018 0.168 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

19 -5.0 1.342 0.526 0.262 0.018 0.168 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

20 5.0 1.338 0.521 0.257 0.018 0.168 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

21 15.0 1.340 0.515 0.252 0.018 0.170 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

22 24.9 1.341 0.508 0.245 0.018 0.172 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

23 35.0 1.341 0.499 0.236 0.018 0.175 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

24 45.0 1.339 0.490 0.228 0.018 0.176 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

25 54.9 1.339 0.481 0.219 0.018 0.180 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

26 64.9 1.339 0.472 0.210 0.018 0.183 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

27 74.9 1.338 0.466 0.205 0.018 0.184 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

28 84.9 1.342 0.461 0.201 0.018 0.185 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

29 95.0 1.340 0.451 0.191 0.018 0.189 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

30 105.0 1.338 0.444 0.185 0.018 0.190 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

31 115.0 1.340 0.439 0.180 0.018 0.190 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

32 125.0 1.339 0.434 0.174 0.018 0.194 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

33 134.9 1.338 0.430 0.169 0.018 0.195 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

34 144.9 1.336 0.427 0.167 0.018 0.195 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

35 154.9 1.338 0.427 0.167 0.018 0.195 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

36 164.9 1.339 0.427 0.166 0.018 0.196 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

37 174.9 1.337 0.427 0.166 0.018 0.197 0.146 0.081 0.045 0.035 0.064 0.090 0.111 0.087 0.107 0.137 0.107 0.199 0.214 0.245

ORIFICE 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

XS FT 0.0278 0.0585 0.0833 0.1110 0.1388 0.1665 0.1943 0.2220 0.2498 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNX -0.6180 -1.0283 -0.9414 -0.4546 -0.4094 0.0049 0.0049 1.4078 1.6405

CYX 0.2120 0.2162 0.1215 -0.0108 -0.1271 -0.0128 -0.2433 -0.2071 -0.0000

CAX 4.8796 2.5330 0.0097 0.0097 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE 11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CNX 0.5563 0.5252 1.5896 2.2746 2.6113 1.6968 0.7701 0.2573 -2.6535

CYX -0.5160 0.3073 0.3013 0.1758 0.0639 0.0754 0.2636 -0.2980 0.5701

CAX -0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CW 0.242 0.005 0.237 -0.199 -0.033

CLW -0.033



DATE 6-MAR-78 PROJECT NO P41C-WOC

AND, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPELSION WIND TUNNEL

ANGLO AIR FORCE STATION, TENNESSEE

TEST PART MACH MEXIO-6 PT

TC-532 99 1.099 2.999 1407.7 659.7 558.3 1132.2 88.3

DATE 2-16-78 AEC PROPELSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG 13 SURVEY 101 ALFAS 2.01 PHAR 2046.4 X 11.967 Y 3.500 Z -1.100

PRT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
6	-174.9	1.334	0.480	0.215	0.023	-0.162	-0.060	0.042	0.170	0.101	0.043	-0.003	-0.045	-0.074	-0.084	-0.065	-0.089	-0.123	-0.154	-0.167
7	-164.9	1.332	0.486	0.218	0.022	-0.161	-0.070	0.030	0.171	0.102	0.042	-0.006	-0.046	-0.077	-0.091	-0.059	-0.088	-0.121	-0.159	-0.171
8	-154.9	1.332	0.494	0.222	0.026	-0.160	-0.069	0.020	0.169	0.101	0.039	-0.008	-0.049	-0.081	-0.092	-0.060	-0.089	-0.131	-0.162	-0.174
9	-144.9	1.332	0.500	0.228	0.031	-0.158	-0.068	0.021	0.167	0.098	0.037	-0.012	-0.051	-0.085	-0.092	-0.062	-0.094	-0.133	-0.167	-0.175
10	-134.9	1.337	0.512	0.238	0.038	-0.153	-0.063	0.023	0.163	0.095	0.032	-0.017	-0.061	-0.092	-0.091	-0.067	-0.101	-0.141	-0.173	-0.171
11	-124.9	1.333	0.519	0.245	0.044	-0.149	-0.061	0.022	0.153	0.087	0.023	-0.028	-0.071	-0.100	-0.090	-0.077	-0.118	-0.160	-0.181	-0.165
12	-114.9	1.334	0.527	0.254	0.050	-0.143	-0.056	0.023	0.145	0.080	0.015	-0.036	-0.082	-0.106	-0.087	-0.086	-0.128	-0.170	-0.183	-0.156
13	-104.9	1.333	0.536	0.265	0.051	-0.138	-0.050	0.061	0.131	0.082	0.001	-0.055	-0.095	-0.114	-0.084	-0.106	-0.150	-0.190	-0.180	-0.144
14	-94.9	1.334	0.541	0.275	0.059	-0.131	-0.043	0.093	0.122	0.087	0.016	-0.070	-0.112	-0.115	-0.088	-0.124	-0.162	-0.210	-0.193	-0.137
15	-84.9	1.334	0.545	0.285	0.059	-0.124	-0.035	0.117	0.109	0.083	0.029	-0.087	-0.129	-0.113	-0.088	-0.147	-0.181	-0.251	-0.183	-0.132
16	-74.9	1.334	0.548	0.294	0.059	-0.117	-0.023	0.137	0.107	0.087	0.039	-0.045	-0.105	-0.109	-0.096	-0.175	-0.249	-0.247	-0.153	-0.129
17	-64.9	1.331	0.545	0.297	0.056	-0.110	-0.013	0.146	0.085	0.083	0.063	-0.024	-0.104	-0.109	-0.105	-0.209	-0.287	-0.270	-0.145	-0.128
18	-54.9	1.335	0.545	0.301	0.053	-0.106	0.006	0.147	0.073	0.083	0.078	-0.041	-0.106	-0.100	-0.105	-0.248	-0.328	-0.315	-0.134	-0.125
19	-44.9	1.335	0.539	0.300	0.046	-0.102	0.003	0.157	0.061	0.078	0.099	-0.046	-0.106	-0.099	-0.105	-0.286	-0.360	-0.340	-0.130	-0.129
20	-34.9	1.334	0.531	0.297	0.040	-0.098	0.003	0.167	0.045	0.068	0.110	-0.033	-0.103	-0.100	-0.097	-0.340	-0.420	-0.399	-0.113	-0.123
21	-24.9	1.334	0.521	0.293	0.034	-0.094	0.004	0.169	0.027	0.052	0.124	-0.094	-0.100	-0.092	-0.092	-0.420	-0.492	-0.470	-0.109	-0.123
22	-14.9	1.335	0.512	0.288	0.028	-0.092	0.009	0.168	0.003	0.044	0.139	-0.099	-0.106	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
23	-5.0	1.335	0.500	0.278	0.019	-0.093	0.022	0.166	0.026	0.031	0.160	-0.090	-0.116	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
24	5.0	1.334	0.487	0.265	0.006	-0.094	0.034	0.164	0.040	0.021	0.160	-0.092	-0.146	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
25	15.0	1.334	0.476	0.252	0.003	-0.098	0.041	0.167	0.060	0.016	0.160	-0.090	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
26	25.0	1.333	0.465	0.237	0.003	-0.101	0.070	0.167	0.110	0.005	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
27	35.0	1.335	0.456	0.224	0.002	-0.107	0.054	0.167	0.130	0.013	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
28	45.0	1.333	0.447	0.213	0.002	-0.110	0.010	0.169	0.134	0.034	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
29	54.9	1.332	0.440	0.203	0.003	-0.111	-0.008	0.166	0.136	0.052	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
30	64.9	1.333	0.437	0.197	0.006	-0.111	-0.019	0.169	0.139	0.072	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
31	74.9	1.334	0.434	0.190	0.006	-0.112	-0.029	0.169	0.140	0.092	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
32	84.9	1.333	0.433	0.187	0.007	-0.112	-0.036	0.171	0.139	0.109	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
33	94.9	1.334	0.433	0.185	0.006	-0.113	-0.044	0.172	0.140	0.124	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
34	104.9	1.335	0.434	0.182	0.006	-0.113	-0.054	0.173	0.140	0.144	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
35	115.0	1.334	0.437	0.183	0.009	-0.114	-0.061	0.160	0.144	0.164	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
36	125.0	1.333	0.439	0.182	0.007	-0.114	-0.066	0.146	0.149	0.169	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
37	134.9	1.332	0.442	0.184	0.005	-0.115	-0.068	0.132	0.153	0.168	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
38	144.9	1.334	0.449	0.188	0.006	-0.116	-0.067	0.117	0.159	0.165	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
39	154.9	1.331	0.452	0.191	0.007	-0.116	-0.069	0.116	0.161	0.167	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
40	164.9	1.333	0.460	0.195	0.009	-0.116	-0.071	0.107	0.165	0.161	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123
41	174.9	1.333	0.468	0.201	0.012	-0.117	-0.073	0.081	0.168	0.163	0.160	-0.089	-0.160	-0.089	-0.089	-0.420	-0.492	-0.470	-0.109	-0.123

GRIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX	-0.1466	-0.7350	-1.1864	-1.1118	-4.1213	-1.2655	2.7608	2.9624	3.0139
CX	0.7311	1.0935	0.8160	0.0704	0.2636	-1.0504	0.1968	0.3091	-0.1982
CX	5.0112	2.8666	0.4653	-0.4282	0.0000	0.0000	0.0000	0.0000	0.0000
GRIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	1.3872	1.5724	-0.5139	2.5866	5.5582	2.4413	-0.5596	-0.8743	-0.6591
CX	-0.4010	-0.7016	-0.9580	-0.3987	0.1928	0.2282	-0.1640	-0.2971	0.2840
CX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	0.308	0.017	CA	0.285	CLW	-0.761	CLW	0.301	

DATE 4-MAR-78 PROJECT NO P41C-MOC

ARO, INC.

AEC DIVISION

A SPENDUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART WACH

TC-532 100 1.100 3.002 1410.1 460.2 559.5 1133.1 88.6

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY ALFA PRAR X Y Z  
2.00 13 102 2.01 2047.0 11.967 3.500 -1.950

PNT	DPH1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.9	1.128	0.473	0.207	0.014	-0.173	-0.086	-0.002	0.182	0.126	0.077	0.033	0.009	-0.044	-0.065	-0.059	-0.059	-0.080	-0.114	-0.150
2	174.9	1.131	0.479	0.210	0.017	-0.176	-0.090	-0.006	0.185	0.129	0.080	0.037	0.009	-0.039	-0.058	-0.057	-0.050	-0.075	-0.106	-0.147
3	184.9	1.130	0.484	0.215	0.020	-0.180	-0.090	-0.007	0.183	0.126	0.075	0.034	0.008	-0.043	-0.057	-0.053	-0.049	-0.073	-0.100	-0.131
4	184.9	1.133	0.492	0.221	0.023	-0.185	-0.088	-0.014	0.184	0.129	0.074	0.032	0.011	-0.046	-0.058	-0.053	-0.047	-0.070	-0.104	-0.135
5	184.9	1.133	0.496	0.225	0.026	-0.186	-0.087	-0.015	0.179	0.131	0.067	0.025	0.018	-0.051	-0.061	-0.055	-0.049	-0.072	-0.104	-0.134
6	184.9	1.130	0.501	0.231	0.028	-0.187	-0.083	-0.013	0.170	0.115	0.062	0.018	-0.026	-0.059	-0.066	-0.058	-0.054	-0.064	-0.092	-0.126
7	184.9	1.133	0.507	0.234	0.030	-0.188	-0.078	-0.001	0.161	0.111	0.057	0.011	-0.033	-0.066	-0.073	-0.053	-0.047	-0.071	-0.103	-0.138
8	184.9	1.134	0.512	0.245	0.036	-0.188	-0.071	0.014	0.149	0.106	0.049	0.003	-0.042	-0.073	-0.083	-0.053	-0.040	-0.060	-0.090	-0.126
9	184.9	1.133	0.511	0.250	0.031	-0.190	-0.064	0.037	0.137	0.098	0.045	-0.007	-0.034	-0.080	-0.090	-0.053	-0.040	-0.064	-0.090	-0.126
10	184.9	1.133	0.514	0.256	0.027	-0.190	-0.056	0.076	0.128	0.090	0.031	-0.018	-0.037	-0.089	-0.093	-0.053	-0.040	-0.064	-0.090	-0.126
11	184.9	1.133	0.516	0.257	0.021	-0.190	-0.052	0.107	0.124	0.083	0.023	-0.020	-0.039	-0.102	-0.089	-0.065	-0.053	-0.064	-0.092	-0.126
12	184.9	1.133	0.514	0.257	0.021	-0.190	-0.052	0.107	0.124	0.083	0.023	-0.020	-0.039	-0.102	-0.089	-0.065	-0.053	-0.064	-0.092	-0.126
13	184.9	1.133	0.513	0.256	0.022	-0.190	-0.048	0.130	0.122	0.077	0.014	-0.040	-0.051	-0.117	-0.084	-0.067	-0.053	-0.064	-0.092	-0.126
14	184.9	1.132	0.509	0.254	0.023	-0.190	-0.044	0.151	0.122	0.069	0.003	-0.050	-0.103	-0.135	-0.078	-0.067	-0.053	-0.064	-0.092	-0.126
15	184.9	1.133	0.504	0.252	0.021	-0.190	-0.038	0.152	0.121	0.059	-0.003	-0.063	-0.118	-0.156	-0.072	-0.067	-0.053	-0.064	-0.092	-0.126
16	184.9	1.133	0.499	0.248	0.018	-0.190	-0.031	0.174	0.121	0.053	-0.011	-0.070	-0.118	-0.162	-0.072	-0.067	-0.053	-0.064	-0.092	-0.126
17	184.9	1.132	0.492	0.245	0.022	-0.190	-0.027	0.184	0.121	0.047	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
18	184.9	1.132	0.485	0.239	0.026	-0.190	-0.023	0.185	0.121	0.042	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
19	184.9	1.132	0.477	0.231	0.024	-0.190	-0.024	0.185	0.120	0.038	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
20	184.9	1.134	0.470	0.226	0.019	-0.190	-0.023	0.187	0.119	0.036	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
21	184.9	1.137	0.465	0.219	0.013	-0.190	-0.026	0.186	0.118	0.033	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
22	184.9	1.134	0.456	0.209	0.006	-0.190	-0.034	0.186	0.116	0.029	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
23	184.9	1.134	0.449	0.201	0.008	-0.190	-0.042	0.185	0.119	0.026	-0.020	-0.073	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
24	184.9	1.135	0.443	0.192	0.019	-0.190	-0.049	0.185	0.124	0.020	-0.003	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
25	184.9	1.133	0.438	0.186	0.014	-0.190	-0.053	0.186	0.121	0.014	-0.003	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
26	184.9	1.132	0.435	0.182	0.008	-0.190	-0.059	0.187	0.127	0.009	-0.011	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
27	184.9	1.132	0.432	0.177	0.003	-0.190	-0.068	0.185	0.143	0.009	-0.020	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
28	184.9	1.131	0.432	0.174	0.000	-0.190	-0.074	0.174	0.150	0.000	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
29	184.9	1.131	0.432	0.174	0.000	-0.190	-0.074	0.174	0.150	0.000	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
30	184.9	1.132	0.435	0.177	0.002	-0.190	-0.081	0.137	0.165	0.008	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
31	184.9	1.134	0.438	0.177	0.004	-0.190	-0.082	0.137	0.165	0.014	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
32	184.9	1.132	0.441	0.180	0.004	-0.190	-0.081	0.137	0.166	0.018	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
33	184.9	1.131	0.445	0.182	0.004	-0.190	-0.082	0.137	0.168	0.021	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
34	184.9	1.130	0.449	0.186	0.001	-0.190	-0.084	0.137	0.171	0.024	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
35	184.9	1.132	0.456	0.191	0.002	-0.190	-0.088	0.130	0.175	0.027	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
36	184.9	1.129	0.459	0.193	0.002	-0.190	-0.091	0.130	0.176	0.031	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126
37	184.9	1.130	0.465	0.199	0.007	-0.190	-0.090	0.131	0.181	0.036	-0.030	-0.066	-0.120	-0.153	-0.070	-0.067	-0.053	-0.064	-0.092	-0.126

DRIFICE	2	3	4	5	6	7	8	9	10
X5 FT	0.0278	0.0555	0.0933	0.1110	0.1388	0.1655	0.1943	0.2220	0.2498
CX	-0.0323	-0.3016	-0.5968	-0.7302	-1.0133	-1.1481	1.0709	1.4759	1.7144
CX	0.5305	0.8451	0.7789	0.3662	0.1596	-0.4640	-0.1242	0.0496	-0.0978
CX	4.8781	2.6190	0.2551	-0.5047	0.0000	0.0000	0.0000	0.0000	0.0000

DRIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	1.8026	1.3032	1.4271	-0.0251	1.0549	2.6126	3.4304	0.5655	-0.6718
CX	-0.2396	-0.4198	-0.4166	-0.4191	0.0448	0.1322	0.0281	-0.0907	-0.2646
CX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 0.270 CY -0.054 CA 0.265 CLM -0.778 CLW 0.971



DATE 6-MAR-78 PROJECT NO P41C-N8C

ARO, INC.

AERO DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH REX10-6 PT

TC-512 101 1.099 2.998 1498.3 660.6 558.3 1131.8 88.5

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 103

ALFA 2.01

PSAR 2047.1

X 11.967

Y 3.500

Z -2.700

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	-174.8	1.332	0.474	0.206	0.012	-0.176	-0.103	-0.013	0.138	0.147	0.101	0.060	0.023	-0.013	-0.030	-0.041	-0.057	-0.058	-0.073	-0.108
3	-165.0	1.332	0.478	0.206	0.011	-0.178	-0.109	-0.023	0.128	0.149	0.102	0.063	0.026	-0.007	-0.021	-0.038	-0.059	-0.058	-0.063	-0.101
4	-153.0	1.332	0.482	0.211	0.015	-0.176	-0.108	-0.021	0.121	0.148	0.102	0.063	0.027	-0.003	-0.015	-0.037	-0.058	-0.054	-0.063	-0.100
5	-144.9	1.332	0.485	0.215	0.018	-0.171	-0.109	-0.020	0.114	0.145	0.098	0.059	0.023	-0.011	-0.014	-0.040	-0.060	-0.058	-0.067	-0.104
6	-135.1	1.331	0.489	0.220	0.023	-0.167	-0.108	-0.020	0.114	0.141	0.094	0.055	0.019	-0.013	-0.014	-0.049	-0.061	-0.057	-0.072	-0.110
7	-125.1	1.331	0.491	0.224	0.027	-0.163	-0.102	-0.009	0.119	0.138	0.091	0.051	0.014	-0.020	-0.018	-0.049	-0.061	-0.059	-0.080	-0.118
8	-115.1	1.331	0.494	0.229	0.031	-0.160	-0.097	-0.009	0.124	0.133	0.084	0.046	0.007	-0.020	-0.023	-0.056	-0.059	-0.054	-0.086	-0.127
9	-105.0	1.334	0.497	0.234	0.035	-0.156	-0.093	0.001	0.127	0.130	0.082	0.042	0.001	-0.033	-0.028	-0.068	-0.054	-0.058	-0.097	-0.137
10	-95.0	1.332	0.497	0.236	0.038	-0.154	-0.090	0.011	0.130	0.125	0.076	0.034	0.009	-0.041	-0.037	-0.074	-0.051	-0.076	-0.110	-0.152
11	-85.0	1.332	0.496	0.236	0.040	-0.151	-0.086	0.021	0.131	0.120	0.070	0.027	0.017	-0.051	-0.044	-0.083	-0.050	-0.086	-0.124	-0.168
12	-74.8	1.331	0.495	0.235	0.042	-0.148	-0.083	0.031	0.135	0.117	0.065	0.021	0.034	-0.060	-0.049	-0.085	-0.050	-0.096	-0.137	-0.184
13	-65.0	1.332	0.494	0.235	0.044	-0.146	-0.079	0.045	0.138	0.115	0.062	0.018	0.039	-0.068	-0.053	-0.077	-0.050	-0.102	-0.146	-0.193
14	-54.9	1.331	0.491	0.233	0.042	-0.140	-0.078	0.055	0.140	0.111	0.057	0.010	0.036	-0.073	-0.063	-0.071	-0.053	-0.110	-0.156	-0.205
15	-45.0	1.332	0.486	0.230	0.041	-0.140	-0.075	0.059	0.143	0.107	0.052	0.004	0.042	-0.070	-0.075	-0.061	-0.057	-0.118	-0.165	-0.215
16	-35.1	1.332	0.481	0.226	0.039	-0.137	-0.072	0.061	0.146	0.103	0.047	0.001	0.046	-0.080	-0.089	-0.050	-0.061	-0.124	-0.174	-0.223
17	-25.1	1.331	0.477	0.223	0.038	-0.136	-0.066	0.064	0.149	0.102	0.045	0.003	0.049	-0.089	-0.101	-0.044	-0.062	-0.128	-0.178	-0.226
18	-15.0	1.333	0.471	0.219	0.034	-0.139	-0.064	0.104	0.152	0.099	0.042	0.007	0.052	-0.094	-0.112	-0.040	-0.067	-0.134	-0.184	-0.230
19	-5.0	1.330	0.465	0.212	0.030	-0.150	-0.062	0.104	0.153	0.098	0.040	0.009	0.052	-0.096	-0.119	-0.037	-0.065	-0.125	-0.185	-0.230
20	5.0	1.333	0.459	0.207	0.025	-0.153	-0.062	0.105	0.155	0.096	0.039	0.010	0.050	-0.096	-0.124	-0.035	-0.070	-0.136	-0.195	-0.230
21	15.0	1.333	0.455	0.201	0.020	-0.156	-0.062	0.105	0.157	0.096	0.040	0.008	0.048	-0.093	-0.124	-0.036	-0.070	-0.135	-0.195	-0.230
22	25.0	1.329	0.447	0.194	0.014	-0.160	-0.064	0.106	0.160	0.098	0.043	0.004	0.044	-0.088	-0.117	-0.033	-0.065	-0.130	-0.195	-0.226
23	35.0	1.331	0.443	0.191	0.011	-0.162	-0.066	0.106	0.163	0.101	0.048	0.002	0.040	-0.080	-0.109	-0.031	-0.061	-0.124	-0.174	-0.225
24	45.0	1.331	0.439	0.183	0.006	-0.168	-0.072	0.105	0.166	0.104	0.054	0.008	0.034	-0.070	-0.096	-0.030	-0.055	-0.117	-0.167	-0.220
25	54.9	1.331	0.437	0.180	0.001	-0.170	-0.075	0.104	0.168	0.108	0.060	0.015	0.037	-0.061	-0.086	-0.040	-0.051	-0.108	-0.150	-0.212
26	64.9	1.331	0.435	0.177	0.004	-0.174	-0.081	0.103	0.172	0.116	0.068	0.024	0.037	-0.048	-0.070	-0.051	-0.044	-0.086	-0.144	-0.198
27	74.9	1.331	0.435	0.176	0.004	-0.176	-0.084	0.104	0.174	0.121	0.074	0.032	0.038	-0.043	-0.059	-0.056	-0.040	-0.087	-0.133	-0.186
28	84.9	1.330	0.435	0.174	0.008	-0.179	-0.088	0.108	0.172	0.126	0.080	0.038	0.032	-0.032	-0.035	-0.052	-0.043	-0.039	-0.079	-0.124
29	95.0	1.329	0.435	0.174	0.010	-0.181	-0.091	0.104	0.170	0.129	0.085	0.041	0.034	-0.020	-0.047	-0.047	-0.039	-0.072	-0.110	-0.163
30	105.0	1.330	0.437	0.174	0.010	-0.185	-0.093	0.104	0.167	0.133	0.090	0.050	0.031	-0.023	-0.044	-0.068	-0.039	-0.065	-0.100	-0.149
31	115.0	1.331	0.441	0.177	0.010	-0.189	-0.094	0.103	0.165	0.137	0.094	0.055	0.035	-0.015	-0.010	-0.040	-0.060	-0.042	-0.090	-0.137
32	125.0	1.328	0.444	0.180	0.008	-0.190	-0.096	0.106	0.161	0.141	0.098	0.059	0.030	-0.010	-0.037	-0.056	-0.043	-0.055	-0.082	-0.125
33	134.9	1.329	0.449	0.184	0.007	-0.196	-0.100	0.104	0.158	0.144	0.101	0.062	0.034	-0.000	-0.033	-0.047	-0.047	-0.053	-0.071	-0.115
34	144.9	1.332	0.453	0.188	0.005	-0.198	-0.103	0.104	0.154	0.146	0.103	0.064	0.036	-0.003	-0.032	-0.044	-0.049	-0.052	-0.071	-0.111
35	154.9	1.331	0.457	0.193	0.003	-0.198	-0.108	0.103	0.147	0.147	0.103	0.065	0.037	-0.000	-0.030	-0.040	-0.051	-0.052	-0.066	-0.101
36	164.9	1.329	0.461	0.193	0.001	-0.195	-0.109	0.103	0.143	0.149	0.104	0.065	0.038	-0.000	-0.027	-0.038	-0.055	-0.052	-0.066	-0.101
37	174.9	1.330	0.466	0.197	0.003	-0.192	-0.110	0.102	0.138	0.150	0.105	0.067	0.039	-0.003	-0.024	-0.036	-0.055	-0.053	-0.062	-0.098

ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CW1	0.0443	-0.0982	-0.3094	-0.4559	-0.7132	-2.1444	-0.1532	-0.8346	1.0173
CW2	0.4054	0.4793	0.6810	0.4863	-0.0337	-0.3829	-0.6796	-0.0353	-0.1143
CAX	4.8108	2.4980	0.1433	-0.5512	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
X5 FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CW1	1.1832	1.2903	1.4471	1.4728	0.0299	0.1335	1.3529	2.0175	2.2139
CW2	-0.1385	-0.1825	-0.2088	0.3127	-0.2104	-0.1825	-0.0789	0.0249	0.1248
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CN 0.288 CY 0.020 CA 0.256 CLW -0.994 CLW 0.176

DATE 6-MAR-78 PROJECT NO P41C-NOC

AND, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLO AIR FORCE STATION, TENNESSEE

TEST PART MACH MEXIO-6 PT

TC-532 102 1.103 3.000 1408.8 457.8 559.7 1135.0 88.6

DATE 2-16-78 AEC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG SURVEY 104

2.00 13

PRT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
10	-174.9	1.338	0.465	0.202	0.010	-0.175	-0.126	-0.051	-0.009	0.009	-0.008	-0.022	-0.037	-0.044	-0.046	-0.101	-0.128	-0.166	-0.178	-0.187
2	-174.9	1.336	0.468	0.203	0.011	-0.174	-0.129	-0.050	-0.016	0.002	-0.012	-0.025	-0.037	-0.044	-0.046	-0.101	-0.128	-0.166	-0.178	-0.187
3	-145.9	1.336	0.468	0.203	0.011	-0.174	-0.129	-0.050	-0.016	0.002	-0.012	-0.025	-0.037	-0.044	-0.046	-0.101	-0.128	-0.166	-0.178	-0.187
4	-155.0	1.337	0.473	0.206	0.013	-0.175	-0.131	-0.050	-0.020	0.003	-0.010	-0.030	-0.040	-0.050	-0.075	-0.110	-0.145	-0.180	-0.194	-0.194
5	-145.9	1.338	0.479	0.210	0.015	-0.174	-0.133	-0.059	-0.023	0.005	-0.020	-0.032	-0.042	-0.054	-0.080	-0.118	-0.151	-0.187	-0.196	-0.194
6	-125.1	1.338	0.484	0.215	0.017	-0.174	-0.135	-0.059	-0.028	0.010	-0.025	-0.036	-0.046	-0.060	-0.089	-0.129	-0.160	-0.197	-0.198	-0.192
7	-125.1	1.339	0.492	0.221	0.022	-0.171	-0.135	-0.066	-0.030	0.015	-0.028	-0.039	-0.049	-0.065	-0.095	-0.134	-0.170	-0.207	-0.197	-0.195
8	-115.1	1.340	0.498	0.226	0.026	-0.165	-0.137	-0.066	-0.034	0.021	-0.031	-0.041	-0.052	-0.073	-0.107	-0.141	-0.185	-0.219	-0.196	-0.198
9	-105.9	1.340	0.504	0.232	0.030	-0.168	-0.139	-0.074	-0.042	0.031	-0.038	-0.044	-0.059	-0.085	-0.122	-0.165	-0.205	-0.225	-0.196	-0.190
10	-85.0	1.340	0.510	0.239	0.034	-0.168	-0.141	-0.082	-0.050	0.041	-0.047	-0.047	-0.065	-0.099	-0.139	-0.180	-0.227	-0.215	-0.194	-0.192
11	-85.0	1.339	0.514	0.244	0.039	-0.164	-0.143	-0.083	-0.056	0.049	-0.051	-0.049	-0.071	-0.111	-0.154	-0.200	-0.243	-0.215	-0.192	-0.188
12	-75.8	1.340	0.517	0.248	0.042	-0.161	-0.144	-0.083	-0.062	0.058	-0.061	-0.052	-0.078	-0.122	-0.168	-0.215	-0.254	-0.208	-0.189	-0.181
13	-55.0	1.338	0.518	0.252	0.044	-0.162	-0.144	-0.081	-0.069	0.066	-0.070	-0.055	-0.085	-0.133	-0.180	-0.228	-0.256	-0.201	-0.184	-0.184
14	-55.0	1.339	0.521	0.258	0.050	-0.158	-0.141	-0.087	-0.070	0.067	-0.080	-0.054	-0.088	-0.139	-0.186	-0.236	-0.266	-0.210	-0.176	-0.183
15	-45.0	1.340	0.521	0.260	0.051	-0.159	-0.146	-0.089	-0.080	0.065	-0.083	-0.058	-0.098	-0.151	-0.201	-0.250	-0.230	-0.189	-0.167	-0.167
16	-35.1	1.341	0.521	0.259	0.052	-0.159	-0.148	-0.089	-0.087	0.059	-0.077	-0.060	-0.105	-0.159	-0.211	-0.258	-0.221	-0.182	-0.160	-0.160
17	-25.1	1.338	0.517	0.258	0.053	-0.158	-0.150	-0.086	-0.093	0.058	-0.071	-0.060	-0.109	-0.165	-0.217	-0.260	-0.209	-0.170	-0.153	-0.153
18	-15.0	1.339	0.515	0.256	0.052	-0.158	-0.151	-0.086	-0.100	0.064	-0.063	-0.058	-0.112	-0.170	-0.222	-0.260	-0.201	-0.175	-0.148	-0.148
19	-5.0	1.342	0.510	0.252	0.049	-0.162	-0.156	-0.087	-0.104	0.070	-0.069	-0.057	-0.114	-0.174	-0.226	-0.260	-0.195	-0.174	-0.147	-0.147
20	5.0	1.337	0.501	0.246	0.045	-0.165	-0.157	-0.087	-0.114	0.093	-0.072	-0.065	-0.113	-0.172	-0.225	-0.258	-0.188	-0.175	-0.151	-0.151
21	15.0	1.339	0.497	0.243	0.043	-0.165	-0.155	-0.087	-0.111	0.099	-0.069	-0.069	-0.108	-0.168	-0.221	-0.250	-0.185	-0.173	-0.156	-0.156
22	25.0	1.340	0.490	0.237	0.037	-0.162	-0.158	-0.086	-0.112	0.097	-0.066	-0.066	-0.106	-0.165	-0.220	-0.250	-0.185	-0.176	-0.160	-0.160
23	35.0	1.339	0.491	0.227	0.031	-0.170	-0.154	-0.087	-0.112	0.091	-0.055	-0.048	-0.107	-0.157	-0.212	-0.240	-0.186	-0.178	-0.167	-0.167
24	45.0	1.338	0.472	0.217	0.023	-0.173	-0.151	-0.093	-0.103	0.081	-0.043	-0.040	-0.090	-0.146	-0.201	-0.240	-0.189	-0.178	-0.167	-0.167
25	54.9	1.340	0.467	0.211	0.019	-0.175	-0.146	-0.092	-0.097	0.071	-0.040	-0.035	-0.091	-0.134	-0.187	-0.230	-0.194	-0.177	-0.160	-0.160
26	64.9	1.340	0.460	0.204	0.015	-0.176	-0.142	-0.091	-0.064	0.063	-0.038	-0.039	-0.089	-0.123	-0.175	-0.220	-0.206	-0.181	-0.163	-0.163
27	74.9	1.339	0.456	0.200	0.012	-0.178	-0.138	-0.081	-0.055	0.040	-0.035	-0.035	-0.089	-0.109	-0.160	-0.201	-0.190	-0.184	-0.176	-0.176
28	85.0	1.340	0.453	0.197	0.010	-0.178	-0.135	-0.080	-0.049	0.035	-0.040	-0.040	-0.093	-0.100	-0.149	-0.193	-0.223	-0.188	-0.176	-0.176
29	95.0	1.340	0.451	0.193	0.007	-0.178	-0.134	-0.081	-0.044	0.031	-0.038	-0.038	-0.093	-0.101	-0.141	-0.180	-0.223	-0.191	-0.176	-0.176
30	105.0	1.337	0.447	0.189	0.003	-0.180	-0.133	-0.074	-0.038	0.026	-0.023	-0.023	-0.093	-0.105	-0.140	-0.180	-0.214	-0.170	-0.154	-0.154
31	115.1	1.337	0.445	0.187	0.002	-0.180	-0.132	-0.074	-0.033	0.021	-0.023	-0.023	-0.093	-0.105	-0.140	-0.180	-0.214	-0.170	-0.154	-0.154
32	125.0	1.335	0.444	0.186	0.000	-0.181	-0.131	-0.066	-0.028	0.015	-0.015	-0.015	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145
33	134.9	1.337	0.445	0.186	0.001	-0.180	-0.131	-0.066	-0.025	0.012	-0.012	-0.012	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145
34	144.9	1.334	0.443	0.185	0.001	-0.180	-0.130	-0.066	-0.023	0.010	-0.010	-0.010	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145
35	154.9	1.335	0.448	0.189	0.001	-0.180	-0.129	-0.064	-0.020	0.007	-0.017	-0.017	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145
36	164.9	1.337	0.451	0.191	0.003	-0.180	-0.130	-0.066	-0.020	0.006	-0.010	-0.010	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145
37	174.9	1.336	0.454	0.193	0.003	-0.181	-0.132	-0.065	-0.021	0.006	-0.010	-0.010	-0.093	-0.107	-0.139	-0.170	-0.200	-0.161	-0.145	-0.145

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CX	-0.3093	-0.6086	-0.5908	-0.2395	0.3916	0.8424	1.3179	1.0615	0.8205
CX	0.4054	0.5436	0.4395	0.2370	-0.0426	0.0703	-0.0488	-0.1642	-0.3810
CX	4.0715	2.6461	0.2182	-0.5468	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	0.4093	1.1640	2.4258	2.3393	2.3393	0.8772	-0.1932	-0.5190	-3.3291
CX	-0.2186	-0.2099	-0.0521	0.0725	0.2361	-0.2208	-0.0627	1.3413	0.0627
CX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CW	0.164	0.076	0.268	0.201	0.201	-0.034			



DATE 6-MAR-78 PROJECT NO P41C-MOC

ARO, INC.  
AERO DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOOLD AIR FORCE STATION, TENNESSEE  
TEST PART MACH PT  
TC-532 93 1.101 2.999 1415.6 682.3 561.8 1135.8 90.7

DATE 2-16-78  
AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA	CONFIG	SURVEY	ALFAS	PHAR	X	Y	Z	VI	TT	DATE	AEDC PROPULSION WIND TUNNEL									
5.00	13	101	5.00	2045.5	11.967	3.500	-1.300													
PNT	DPNT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9	174.9	1.332	0.557	0.290	0.092	0.062	0.043	0.237	0.178	0.134	0.092	0.059	0.034	0.041	0.046	0.019	0.022	0.061	0.083	0.075
10	164.9	1.335	0.566	0.294	0.093	0.065	0.046	0.245	0.186	0.142	0.094	0.068	0.043	0.043	0.043	0.022	0.021	0.064	0.085	0.074
11	155.0	1.335	0.579	0.304	0.100	0.065	0.040	0.244	0.181	0.137	0.093	0.066	0.042	0.043	0.043	0.022	0.021	0.064	0.085	0.074
12	144.9	1.331	0.588	0.313	0.109	0.058	0.050	0.244	0.180	0.135	0.090	0.062	0.042	0.043	0.043	0.022	0.021	0.064	0.085	0.074
13	133.1	1.334	0.601	0.328	0.123	0.046	0.074	0.245	0.182	0.133	0.086	0.066	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
14	123.0	1.332	0.606	0.337	0.131	0.040	0.090	0.245	0.181	0.130	0.081	0.069	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
15	113.1	1.334	0.612	0.350	0.143	0.034	0.130	0.244	0.181	0.126	0.073	0.073	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
16	103.0	1.334	0.612	0.356	0.151	0.023	0.154	0.244	0.181	0.120	0.065	0.073	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
17	93.0	1.335	0.610	0.359	0.160	0.007	0.187	0.247	0.180	0.115	0.055	0.069	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
18	83.0	1.334	0.604	0.360	0.165	0.008	0.218	0.249	0.178	0.103	0.043	0.069	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
19	74.9	1.335	0.595	0.361	0.171	0.028	0.258	0.260	0.175	0.095	0.029	0.069	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
20	64.9	1.334	0.584	0.360	0.176	0.053	0.303	0.271	0.172	0.085	0.015	0.032	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
21	54.9	1.338	0.571	0.356	0.179	0.080	0.343	0.282	0.167	0.074	0.004	0.004	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
22	45.1	1.332	0.552	0.346	0.177	0.097	0.375	0.282	0.157	0.061	0.003	0.003	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
23	35.1	1.333	0.536	0.336	0.176	0.112	0.407	0.291	0.143	0.048	0.002	0.009	0.045	0.043	0.043	0.022	0.021	0.064	0.085	0.074
24	25.1	1.332	0.516	0.324	0.171	0.124	0.428	0.290	0.120	0.030	0.041	0.033	0.014	0.016	0.016	0.016	0.016	0.016	0.016	0.016
25	15.0	1.332	0.500	0.309	0.164	0.133	0.421	0.227	0.046	0.034	0.092	0.084	0.019	0.011	0.011	0.011	0.011	0.011	0.011	0.011
26	5.0	1.332	0.484	0.294	0.156	0.138	0.342	0.176	0.015	0.088	0.103	0.098	0.026	0.011	0.011	0.011	0.011	0.011	0.011	0.011
27	5.0	1.333	0.470	0.277	0.144	0.139	0.303	0.167	0.007	0.073	0.115	0.056	0.043	0.016	0.016	0.016	0.016	0.016	0.016	0.016
28	15.3	1.331	0.458	0.265	0.135	0.131	0.294	0.168	0.007	0.065	0.086	0.021	0.054	0.025	0.025	0.025	0.025	0.025	0.025	0.025
29	25.0	1.332	0.449	0.253	0.126	0.119	0.288	0.169	0.022	0.048	0.059	0.018	0.057	0.011	0.011	0.011	0.011	0.011	0.011	0.011
30	35.0	1.330	0.440	0.239	0.114	0.104	0.281	0.162	0.051	0.031	0.030	0.026	0.063	0.032	0.032	0.032	0.032	0.032	0.032	0.032
31	45.0	1.332	0.436	0.226	0.102	0.092	0.260	0.155	0.075	0.009	0.009	0.028	0.077	0.046	0.046	0.046	0.046	0.046	0.046	0.046
32	54.9	1.328	0.429	0.219	0.092	0.083	0.238	0.206	0.095	0.019	0.006	0.026	0.084	0.055	0.055	0.055	0.055	0.055	0.055	0.055
33	64.9	1.327	0.427	0.211	0.083	0.069	0.229	0.219	0.116	0.040	0.021	0.025	0.086	0.061	0.061	0.061	0.061	0.061	0.061	0.061
34	74.9	1.330	0.429	0.206	0.073	0.052	0.232	0.225	0.135	0.061	0.035	0.026	0.088	0.066	0.066	0.066	0.066	0.066	0.066	0.066
35	84.9	1.326	0.410	0.203	0.063	0.032	0.237	0.229	0.149	0.078	0.047	0.029	0.087	0.070	0.070	0.070	0.070	0.070	0.070	0.070
36	95.0	1.325	0.435	0.202	0.056	0.011	0.198	0.239	0.161	0.094	0.058	0.039	0.085	0.070	0.070	0.070	0.070	0.070	0.070	0.070
37	105.0	1.328	0.442	0.203	0.049	0.011	0.188	0.239	0.168	0.104	0.067	0.040	0.085	0.070	0.070	0.070	0.070	0.070	0.070	0.070
38	115.0	1.328	0.455	0.210	0.046	0.009	0.133	0.250	0.176	0.116	0.075	0.047	0.074	0.070	0.070	0.070	0.070	0.070	0.070	0.070
39	125.0	1.327	0.465	0.216	0.045	0.002	0.096	0.250	0.178	0.122	0.081	0.051	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068
40	134.9	1.329	0.479	0.226	0.047	0.009	0.071	0.251	0.180	0.126	0.085	0.054	0.061	0.068	0.068	0.068	0.068	0.068	0.068	0.068
41	144.9	1.326	0.488	0.230	0.048	0.018	0.055	0.250	0.179	0.127	0.086	0.055	0.055	0.062	0.062	0.062	0.062	0.062	0.062	0.062
42	154.9	1.329	0.506	0.243	0.056	0.029	0.041	0.252	0.181	0.132	0.090	0.058	0.050	0.059	0.059	0.059	0.059	0.059	0.059	0.059
43	164.9	1.332	0.524	0.257	0.065	0.043	0.031	0.253	0.181	0.134	0.093	0.060	0.045	0.055	0.055	0.055	0.055	0.055	0.055	0.055
44	174.9	1.332	0.539	0.269	0.073	0.055	0.026	0.251	0.180	0.135	0.093	0.059	0.039	0.048	0.048	0.048	0.048	0.048	0.048	0.048
GRIPICE	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
XS FT	0.0270	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498											
CXK	0.4335	-0.1543	-1.0848	-2.9388	-5.3010	0.5475	2.5030	2.6812	2.4436											
CYK	1.1309	1.7948	1.5015	-0.4467	0.5946	0.6041	0.7863	0.5952	-0.0198											
CAX	5.3277	3.4361	1.0237	0.0997	0.0000	0.0000	0.0000	0.0000	0.0000											
GRIPICE	11	12	13	14	15	16	17	18	19											
XS FT	0.2775	0.3053	0.3330	0.3608	0.3885	0.4162	0.4440	0.4718	0.4995											
CXK	0.5099	0.0360	0.3844	3.7941	5.9929	1.0798	-1.4151	-1.0033	-0.1015											
CYK	-0.5318	-1.4619	-0.4684	-0.1414	-0.0047	0.2188	0.3028	0.1382	0.3667											
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000											
CN	0.231	0.451	0.339	-0.730	0.471															

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0355	0.0833	0.1110	0.1388	0.1655	0.1943	0.2220	0.2498
CX	-0.0335	-0.1543	-1.0848	-2.9388	-5.3010	-5.5475	-2.5330	2.6812	2.6436
CY	1.1309	1.7448	1.5015	-0.4457	0.5946	0.6041	0.5763	0.5992	-0.0198
CZ	5.3277	3.4161	1.0237	0.0997	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.0275	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CX	-0.5099	0.0360	-0.3844	3.7941	5.9229	-1.0798	-1.4151	-1.0033	-0.1015
CY	-0.5318	-1.4619	-0.6684	-0.1414	-0.0047	0.2188	0.3028	0.1382	0.3667
CZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	CY	CZ	CA	CLM	CLW	CLW	CLW	CLW	CLW
0.231	0.151	0.339	-0.730	0.471					

DATE 6-MAR-78 PROJECT NO P41C-MOC

Y ASD, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ABOARD AIR FORCE STATION, TENNESSEE

TEST PARY MACH

TC-532 94 1.101

3.001 1409.7

PT 659.7

Q 559.4

VI 113.4

TV 88.6

DATE 2-16-78

AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

5.00 13

SURVEY

102

ALFAS

4.99

PHAR

2045.7

X 11.967

Y 3.500

Z -1.950

PNT

DPMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1.331 0.546 0.279 0.077 0.104 0.003 0.267 0.196 0.159 0.125 0.092 0.064 0.049 0.036 0.051 0.016 0.016 0.016 0.016

1.331 0.552 0.281 0.078 0.108 0.007 0.266 0.197 0.160 0.126 0.095 0.065 0.048 0.036 0.053 0.021 0.021 0.021 0.021

1.334 0.563 0.290 0.086 0.100 0.003 0.268 0.200 0.163 0.128 0.096 0.065 0.046 0.034 0.057 0.024 0.024 0.024 0.024

1.333 0.567 0.295 0.090 0.100 0.001 0.265 0.198 0.160 0.125 0.092 0.060 0.040 0.035 0.049 0.019 0.019 0.019 0.019

1.333 0.571 0.304 0.099 0.093 0.011 0.255 0.197 0.159 0.122 0.089 0.055 0.036 0.034 0.045 0.014 0.014 0.014 0.014

1.334 0.574 0.310 0.105 0.089 0.024 0.255 0.196 0.158 0.120 0.085 0.051 0.032 0.034 0.041 0.008 0.008 0.008 0.008

1.330 0.571 0.310 0.109 0.084 0.037 0.264 0.194 0.154 0.114 0.079 0.041 0.024 0.032 0.034 0.004 0.004 0.004 0.004

1.333 0.569 0.310 0.113 0.079 0.050 0.267 0.194 0.152 0.110 0.072 0.034 0.019 0.034 0.015 0.015 0.015 0.015

1.334 0.564 0.308 0.114 0.075 0.058 0.246 0.193 0.148 0.103 0.063 0.024 0.013 0.034 0.015 0.015 0.015 0.015

1.334 0.557 0.307 0.116 0.069 0.067 0.248 0.193 0.145 0.098 0.055 0.016 0.011 0.046 0.001 0.001 0.001 0.001

1.335 0.546 0.302 0.116 0.063 0.082 0.247 0.191 0.140 0.089 0.045 0.008 0.014 0.043 0.001 0.001 0.001 0.001

1.334 0.533 0.294 0.114 0.057 0.103 0.247 0.188 0.132 0.079 0.033 0.007 0.019 0.038 0.001 0.001 0.001 0.001

1.334 0.523 0.289 0.114 0.049 0.122 0.249 0.188 0.129 0.074 0.028 0.014 0.026 0.037 0.001 0.001 0.001 0.001

1.332 0.508 0.279 0.109 0.043 0.141 0.249 0.183 0.120 0.063 0.017 0.018 0.030 0.032 0.040 0.013 0.013 0.013 0.013

1.333 0.493 0.267 0.104 0.033 0.169 0.248 0.180 0.112 0.054 0.007 0.017 0.035 0.037 0.061 0.013 0.013 0.013 0.013

1.332 0.481 0.259 0.099 0.028 0.184 0.249 0.175 0.105 0.043 0.000 0.012 0.036 0.034 0.069 0.013 0.013 0.013 0.013

1.333 0.466 0.245 0.091 0.019 0.197 0.249 0.169 0.097 0.041 0.007 0.004 0.040 0.021 0.079 0.014 0.014 0.014 0.014

1.333 0.436 0.236 0.085 0.013 0.199 0.250 0.164 0.093 0.041 0.006 0.002 0.043 0.031 0.081 0.016 0.016 0.016 0.016

1.331 0.416 0.226 0.078 0.010 0.198 0.241 0.160 0.091 0.041 0.001 0.004 0.046 0.022 0.079 0.016 0.016 0.016 0.016

1.331 0.419 0.218 0.072 0.007 0.198 0.242 0.160 0.092 0.046 0.007 0.012 0.053 0.038 0.071 0.016 0.016 0.016 0.016

1.331 0.431 0.208 0.064 0.007 0.186 0.242 0.161 0.091 0.053 0.016 0.025 0.059 0.034 0.063 0.015 0.015 0.015 0.015

1.330 0.426 0.201 0.056 0.009 0.175 0.234 0.163 0.101 0.059 0.022 0.033 0.062 0.037 0.050 0.014 0.014 0.014 0.014

1.327 0.421 0.194 0.049 0.011 0.167 0.234 0.168 0.108 0.068 0.031 0.045 0.067 0.044 0.040 0.013 0.013 0.013 0.013

1.326 0.419 0.187 0.042 0.016 0.153 0.234 0.175 0.117 0.076 0.041 0.057 0.072 0.051 0.031 0.016 0.016 0.016 0.016

1.328 0.421 0.186 0.037 0.020 0.140 0.245 0.182 0.127 0.086 0.052 0.066 0.076 0.058 0.031 0.016 0.016 0.016 0.016

1.327 0.424 0.185 0.031 0.027 0.115 0.246 0.188 0.136 0.096 0.063 0.073 0.079 0.064 0.040 0.016 0.016 0.016 0.016

1.329 0.429 0.185 0.026 0.038 0.082 0.246 0.193 0.143 0.103 0.071 0.073 0.078 0.065 0.041 0.016 0.016 0.016 0.016

1.326 0.435 0.188 0.023 0.047 0.053 0.255 0.196 0.149 0.109 0.077 0.072 0.076 0.066 0.021 0.016 0.016 0.016 0.016

1.328 0.445 0.193 0.024 0.057 0.026 0.257 0.199 0.153 0.113 0.082 0.070 0.074 0.067 0.030 0.016 0.016 0.016 0.016

1.327 0.455 0.200 0.025 0.072 0.000 0.266 0.199 0.155 0.117 0.085 0.068 0.071 0.067 0.037 0.018 0.018 0.018 0.018

1.328 0.465 0.206 0.027 0.081 0.013 0.267 0.200 0.157 0.120 0.088 0.068 0.069 0.067 0.040 0.010 0.010 0.010 0.010

1.327 0.476 0.214 0.029 0.101 0.025 0.265 0.198 0.158 0.120 0.089 0.067 0.064 0.064 0.043 0.003 0.003 0.003 0.003

1.328 0.491 0.225 0.036 0.113 0.030 0.265 0.197 0.157 0.123 0.092 0.067 0.062 0.064 0.048 0.006 0.006 0.006 0.006

1.330 0.504 0.236 0.043 0.111 0.029 0.266 0.198 0.159 0.124 0.094 0.068 0.060 0.063 0.051 0.012 0.012 0.012 0.012

1.332 0.521 0.250 0.053 0.119 0.026 0.275 0.198 0.161 0.127 0.096 0.069 0.058 0.062 0.054 0.019 0.019 0.019 0.019

1.330 0.531 0.259 0.061 0.118 0.022 0.275 0.198 0.160 0.127 0.096 0.068 0.055 0.060 0.055 0.021 0.021 0.021 0.021

DRIFTER

2 3 4 5 6 7 8 9 10

XS FT 0.0278 0.0555 0.0833 0.1110 0.1389 0.1665 0.1943 0.2220 0.2508

CXK 0.5616 0.3849 -0.5525 -1.5902 -3.5603 0.4210 0.3752 1.0488 1.3186

CYK 0.8383 1.3761 1.2889 0.3766 0.0459 0.0228 0.0239 0.0707 0.0639

CAX 5.1111 3.0280 0.6559 -0.2006 0.0000 0.0000 0.0000 0.0000 0.0000

ORIFICE

11 12 13 14 15 16 17 18 19

XS FT 0.2775 0.3053 0.3330 0.3608 0.3885 0.4163 0.4440 0.4718 0.4995

CXK 1.5312 0.8567 0.0804 0.5350 2.0990 3.0115 2.5528 -0.6291 -0.4672

CYK -0.2188 -0.6770 -0.8923 -0.2908 -0.0701 0.2343 0.2010 -0.4973 -0.1391

CAX 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

CH 0.225 0.036 0.036 0.304 -0.549 0.436

CLW 0.436



DATE 6-MAR-78 PROJECT NO P41C-WOC

ARO, INC.

AEDC DIVISION

A SPEEDUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 2.995 1406.2 659.3 557.5 1132.0 88.4

TC-137 95 1.099 2.995 1406.2 659.3 557.5 1132.0 88.4

DATE 2-16-78 AEDC PROPULSION WIND TUNNEL  
TRANSONIC 47

ALFA CONFIG SURVEY 103 PRAN 2045.6 X 3.500 Y -2.700

PNT	DPHI	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	174.8	1.334	0.543	0.272	0.070	-0.122	-0.026	0.153	0.218	0.178	0.148	0.119	0.091	0.068	0.061	0.064	0.066	0.021	-0.007	-0.052
2	-174.8	1.335	0.549	0.276	0.072	-0.121	-0.030	0.130	0.221	0.181	0.151	0.123	0.095	0.071	0.061	0.066	0.053	0.026	0.001	-0.045
3	-155.0	1.331	0.550	0.278	0.074	-0.120	-0.030	0.129	0.218	0.180	0.149	0.121	0.093	0.068	0.058	0.064	0.052	0.024	0.000	-0.048
4	-144.9	1.330	0.553	0.283	0.080	-0.115	-0.034	0.154	0.215	0.179	0.149	0.120	0.091	0.065	0.055	0.062	0.050	0.022	-0.005	-0.053
5	-135.1	1.332	0.555	0.289	0.083	-0.111	-0.038	0.167	0.214	0.178	0.147	0.118	0.088	0.062	0.052	0.061	0.048	0.018	-0.010	-0.060
6	-125.0	1.333	0.554	0.289	0.085	-0.108	-0.043	0.179	0.214	0.178	0.147	0.115	0.085	0.058	0.050	0.060	0.044	0.014	-0.017	-0.069
7	-115.0	1.331	0.550	0.286	0.084	-0.105	-0.043	0.179	0.213	0.176	0.143	0.112	0.081	0.053	0.046	0.058	0.039	0.009	-0.026	-0.078
8	-105.0	1.330	0.542	0.282	0.085	-0.103	-0.041	0.203	0.211	0.174	0.140	0.107	0.075	0.046	0.043	0.055	0.032	0.001	-0.040	-0.092
9	-95.0	1.331	0.536	0.278	0.084	-0.102	-0.040	0.219	0.209	0.172	0.137	0.103	0.069	0.040	0.043	0.052	0.025	-0.008	-0.052	-0.105
10	-85.0	1.333	0.529	0.275	0.083	-0.100	-0.040	0.232	0.209	0.172	0.135	0.099	0.064	0.036	0.046	0.051	0.020	-0.014	-0.063	-0.116
11	-75.0	1.332	0.517	0.268	0.080	-0.101	-0.043	0.240	0.205	0.162	0.129	0.092	0.057	0.033	0.049	0.046	0.011	-0.025	-0.078	-0.129
12	-65.0	1.329	0.503	0.257	0.074	-0.101	-0.045	0.248	0.201	0.162	0.122	0.084	0.047	0.031	0.058	0.041	-0.000	-0.039	-0.086	-0.136
13	-55.0	1.332	0.494	0.252	0.073	-0.098	-0.040	0.261	0.202	0.161	0.120	0.081	0.044	0.034	0.064	0.040	-0.008	-0.047	-0.108	-0.128
14	-45.0	1.330	0.470	0.238	0.064	-0.101	-0.049	0.258	0.197	0.155	0.112	0.073	0.035	0.029	0.066	0.035	-0.017	-0.061	-0.120	-0.105
15	-35.1	1.331	0.467	0.229	0.059	-0.101	-0.051	0.258	0.195	0.151	0.108	0.068	0.029	0.026	0.067	0.032	-0.023	-0.068	-0.128	-0.075
16	-25.1	1.329	0.458	0.223	0.055	-0.100	-0.052	0.259	0.193	0.150	0.106	0.067	0.028	0.025	0.070	0.031	-0.026	-0.072	-0.130	-0.060
17	-15.0	1.332	0.451	0.216	0.051	-0.099	-0.052	0.261	0.194	0.149	0.105	0.066	0.030	0.026	0.073	0.031	-0.028	-0.073	-0.130	-0.048
18	-5.0	1.328	0.431	0.197	0.037	-0.101	-0.054	0.259	0.189	0.145	0.102	0.064	0.033	0.028	0.075	0.030	-0.031	-0.081	-0.130	-0.046
19	5.0	1.329	0.425	0.190	0.032	-0.101	-0.051	0.260	0.191	0.147	0.104	0.067	0.038	0.033	0.077	0.034	-0.030	-0.079	-0.124	-0.044
20	15.0	1.329	0.421	0.185	0.028	-0.099	-0.048	0.262	0.193	0.149	0.109	0.072	0.043	0.041	0.081	0.037	-0.025	-0.073	-0.119	-0.042
21	25.0	1.329	0.418	0.180	0.023	-0.100	-0.048	0.260	0.195	0.152	0.112	0.072	0.048	0.047	0.081	0.041	-0.022	-0.072	-0.115	-0.044
22	35.0	1.327	0.416	0.176	0.018	-0.101	-0.048	0.260	0.197	0.156	0.117	0.082	0.054	0.053	0.081	0.045	-0.015	-0.065	-0.108	-0.051
23	45.0	1.326	0.416	0.173	0.014	-0.103	-0.048	0.261	0.201	0.160	0.122	0.089	0.060	0.061	0.082	0.050	-0.007	-0.058	-0.099	-0.066
24	54.9	1.324	0.416	0.171	0.011	-0.108	-0.047	0.260	0.203	0.162	0.125	0.092	0.062	0.064	0.081	0.053	-0.002	-0.049	-0.093	-0.083
25	64.9	1.329	0.423	0.175	0.011	-0.106	-0.048	0.264	0.209	0.168	0.131	0.099	0.070	0.072	0.084	0.059	0.007	-0.033	-0.082	-0.094
26	74.9	1.323	0.425	0.173	0.005	-0.113	-0.054	0.259	0.208	0.167	0.132	0.099	0.070	0.071	0.079	0.059	0.011	-0.033	-0.075	-0.104
27	85.0	1.325	0.435	0.180	0.008	-0.124	-0.053	0.251	0.211	0.171	0.136	0.105	0.077	0.076	0.081	0.063	0.031	-0.020	-0.062	-0.101
28	95.0	1.326	0.446	0.188	0.010	-0.138	-0.058	0.251	0.213	0.173	0.140	0.109	0.081	0.077	0.079	0.065	0.038	-0.011	-0.051	-0.093
29	105.0	1.328	0.455	0.193	0.012	-0.146	-0.062	0.251	0.213	0.174	0.141	0.111	0.083	0.076	0.076	0.066	0.031	-0.008	-0.045	-0.090
30	115.0	1.330	0.469	0.204	0.018	-0.149	-0.058	0.241	0.216	0.177	0.144	0.114	0.086	0.076	0.075	0.068	0.038	0.003	-0.034	-0.080
31	125.0	1.325	0.480	0.212	0.023	-0.152	-0.055	0.226	0.214	0.175	0.143	0.114	0.086	0.073	0.070	0.066	0.040	0.007	-0.027	-0.073
32	134.9	1.329	0.496	0.226	0.032	-0.150	-0.049	0.214	0.217	0.177	0.146	0.117	0.089	0.073	0.069	0.067	0.045	0.014	-0.018	-0.063
33	144.9	1.329	0.508	0.236	0.039	-0.146	-0.046	0.188	0.217	0.177	0.147	0.118	0.092	0.071	0.067	0.067	0.048	0.014	-0.011	-0.057
34	154.9	1.332	0.520	0.248	0.048	-0.142	-0.042	0.173	0.218	0.177	0.148	0.119	0.092	0.071	0.065	0.066	0.050	0.023	-0.007	-0.052
35	164.9	1.330	0.529	0.254	0.053	-0.138	-0.042	0.147	0.217	0.177	0.147	0.119	0.092	0.070	0.062	0.064	0.050	0.023	-0.004	-0.049
36	174.9																			

ORIFICE	2	3	4	5	6	7	8	9	10
XS FT	0.0278	0.0555	0.0833	0.1110	0.1388	0.1665	0.1943	0.2220	0.2498
CXK	0.6530	0.6852	0.7620	-0.5847	-0.4584	-1.6564	0.4235	0.4963	0.7180
CYK	0.6519	1.1095	1.0888	0.3892	0.8334	-0.6581	-0.0160	0.0241	0.0021
CAX	4.9913	2.8016	0.4358	-0.3794	0.0000	0.0000	0.0000	0.0000	0.0000
ORIFICE	11	12	13	14	15	16	17	18	19
XS FT	0.2778	0.3053	0.3330	0.3608	0.3885	0.4163	0.4440	0.4718	0.4995
CXK	0.8839	0.9807	0.8457	-0.2338	0.5485	1.3237	1.6770	2.0916	0.1077
CYK	-0.0553	-0.1617	-0.4938	-0.4893	-0.1723	0.0783	0.2134	0.1121	-0.2881
CAX	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CN	0.243	0.064	0.283	-0.427	0.406				

DATE 6-MAR-78 PROJECT NO PAIC-MOC

ARG. INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART MACH 8X10-4 PT

XC-332 96 1.102 2.998 1407.8 657.8 559.1 1134.4 88.6

DATE 2-18-78

DATE AEDC PROPULSION WIND TUNNEL

TRANSONIC 47

ALFA CONFIG

ALFA 5.00

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DATE, 3-17-78 PROJECT NO. P41C-400  
ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P RE10-5 VM D TT CWP10 SURVEY DATE PROPULSION WIND TUNNEL  
YC-532. 143. 0.925 1652.9 935.9 3.000 975.627 500.5 82.4 12. 50. 2-17-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	0.05	0.0382	-0.0433	-0.1166	-0.1712	-0.1590	-0.0655	-0.0661	-0.0183	-0.0102	0.0088
5.	0.05	0.0387	-0.0434	-0.1171	-0.1733	-0.1723	-0.0659	-0.0693	-0.0221	-0.0131	0.0070
7.	0.11	0.0399	-0.0427	-0.1167	-0.1728	-0.1719	-0.0650	-0.0696	-0.0219	-0.0135	0.0078
9.	-0.01	0.0378	-0.0453	-0.1186	-0.1747	-0.1725	-0.0633	-0.0703	-0.0228	-0.0145	0.0054
11.	2.31	0.0748	-0.0124	-0.0900	-0.1518	-0.1614	-0.0624	-0.0652	-0.0104	0.0092	0.0469
13.	1.95	0.0672	-0.0187	-0.0958	-0.1570	-0.1642	-0.0655	-0.0681	-0.0139	0.0040	0.0389
15.	2.01	0.0698	-0.0173	-0.0945	-0.1560	-0.1535	-0.0656	-0.0669	-0.0127	0.0054	0.0407
17.	5.74	0.1319	0.0369	-0.0613	-0.1075	-0.1258	-0.0397	-0.0415	0.0260	0.0583	0.1147
19.	4.89	0.1170	0.0260	-0.0551	-0.1215	-0.1393	-0.0491	-0.0499	0.0144	0.0449	0.0974
21.	5.05	0.1206	0.0294	-0.0513	-0.1174	-0.1354	-0.0493	-0.0473	0.0172	0.0479	0.1015
23.	5.00	0.1194	0.0278	-0.0524	-0.1183	-0.1363	-0.0469	-0.0485	0.0166	0.0471	0.0998
POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18		
3.	0.05	0.0120	0.0969	-0.1285	-0.0461	-0.1226	-0.2754	-0.0453	0.0160		
5.	0.05	0.0114	0.0979	-0.1484	-0.0603	-0.1245	-0.2714	-0.0500	0.0130		
7.	0.11	0.0128	0.0992	-0.1431	-0.0598	-0.1181	-0.2720	-0.0872	0.0134		
9.	-0.01	0.0092	0.0961	-0.1420	-0.0619	-0.1200	-0.2758	-0.0915	0.0126		
11.	2.31	0.0631	0.1511	-0.1265	-0.0305	-0.0763	-0.2039	-0.0546	0.0278		
13.	1.95	0.0524	0.1415	-0.1099	-0.0362	-0.0673	-0.2145	-0.0619	0.0224		
15.	2.01	0.0560	0.1440	-0.0986	-0.0347	-0.0593	-0.2125	-0.0598	0.0244		
17.	5.74	0.1407	0.0268	-0.0700	0.0216	0.0072	-0.1109	0.0014	0.0615		
19.	4.89	0.1226	0.0204	-0.0317	0.0076	0.0062	-0.1321	-0.0141	0.0517		
21.	5.05	0.1254	0.0219	-0.0219	0.0114	0.0051	-0.1274	-0.0102	0.0543		
23.	5.00	0.1247	0.0213	-0.0159	0.0100	0.0054	-0.1247	-0.0113	0.0537		
POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25			
3.	0.05	0.9900	0.0340	0.0170	0.0296	0.0172	0.0212	0.0104			
5.	0.05	0.9900	0.0281	0.0098	0.0186	0.0026	0.0022	-0.0117			
7.	0.11	0.9900	0.0282	0.0096	0.0189	0.0025	0.0028	-0.0120			
9.	-0.01	0.9900	0.0278	0.0086	0.0184	0.0014	0.0016	-0.0126			
11.	2.31	0.9900	0.0313	0.0104	0.0220	0.0050	0.0050	-0.0092			
13.	1.95	0.9900	0.0291	0.0090	0.0194	0.0030	0.0030	-0.0107			
15.	2.01	0.9900	0.0299	0.0098	0.0208	0.0044	0.0044	-0.0097			
17.	5.74	0.9900	0.0307	0.0172	0.0298	0.0130	0.0117	-0.0026			
19.	4.89	0.9900	0.0384	0.0162	0.0276	0.0105	0.0098	-0.0050			
21.	5.05	0.9900	0.0356	0.0176	0.0288	0.0122	0.0114	-0.0043			
23.	5.00	0.9900	0.0393	0.0170	0.0280	0.0118	0.0105	-0.0044			

DATE, 3-17-78 PROJECT NO. P41C-400  
 AEO, INC.  
 AEOC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	M	DT	P	REX10-6	VM	Q	TT	CONFIO	SURVEY	DATE	PROPULSION WIND TUNNEL
TC-532	143	0.925	1452.9	835.9	3.000	975.827	500.6	82.4	12	50	2-17-78	TRANSONIC AT
POINT	ALFA	CMF	CY	CAF	CLWF	CLN	CLU	C48				
3.	0.05	-0.0275	-0.0002	0.0149	-0.0042	-0.0001	0.0011	0.0090				
5.	0.05	-0.0282	-0.0002	0.0153	-0.0052	-0.0001	0.0011	0.0132				
7.	0.11	-0.0214	-0.0003	0.0155	-0.0052	-0.0001	0.0011	0.0122				
9.	-0.01	-0.0327	-0.0003	0.0153	-0.0057	-0.0001	0.0011	0.0123				
11.	2.31	0.1907	-0.0007	0.0149	0.0064	-0.0001	0.0013	0.0121				
13.	1.95	0.1545	-0.0004	0.0150	0.0045	-0.0001	0.0012	0.0123				
15.	2.01	0.1606	-0.0007	0.0151	0.0052	-0.0001	0.0012	0.0122				
17.	5.76	0.5679	-0.0020	0.0093	0.0141	0.0001	0.0019	0.0114				
19.	4.49	0.4733	-0.0016	0.0101	0.0134	-0.0000	0.0017	0.0120				
21.	5.05	0.4901	-0.0016	0.0098	0.0134	0.0000	0.0016	0.0119				
23.	5.00	0.4846	-0.0017	0.0098	0.0136	-0.0000	0.0017	0.0120				



DATE: 3-17-78 PROJECT NO. P41C-400

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REV10-6 VM Q TT CNFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 120. 0.051 1433.7 801.4 2.997 987.802 587.1 81.5 12. 50. 2-16-78 TRANSONIC AT

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	0.05	0.0477	-0.0379	-0.1188	-0.1780	-0.2271	-0.0444	-0.0494	-0.0032	0.0062	0.0254
5.	-0.02	0.0453	-0.0389	-0.1192	-0.1741	-0.2228	-0.0447	-0.0498	-0.0041	0.0055	0.0238
7.	0.02	0.0473	-0.0382	-0.1184	-0.1785	-0.2220	-0.0444	-0.0496	-0.0033	0.0057	0.0254
27.	1.97	0.0757	-0.0132	-0.0966	-0.1617	-0.2116	-0.0432	-0.0502	0.0019	0.0203	0.0559
29.	1.98	0.0769	-0.0123	-0.0950	-0.1588	-0.2073	-0.0437	-0.0533	0.0018	0.0195	0.0557
31.	4.97	0.1278	0.0336	-0.0534	-0.1271	-0.1763	-0.0337	-0.0347	0.0308	0.0625	0.1166
33.	4.99	0.1278	0.0332	-0.0537	-0.1280	-0.1774	-0.0343	-0.0349	0.0296	0.0621	0.1163

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
3.	0.05	0.0285	0.1141	0.1013	-0.0417	-0.1113	-0.2867	-0.2121	-0.0539
5.	-0.02	0.0258	0.1126	-0.0567	-0.0423	-0.1102	-0.2874	-0.2125	-0.0515
7.	0.02	0.0264	0.1138	-0.1092	-0.0401	-0.1094	-0.2874	-0.2107	-0.0500
27.	1.97	0.0679	0.1564	-0.1100	-0.0182	-0.0711	-0.2350	-0.1334	-0.0045
29.	1.98	0.0678	0.1561	-0.0817	-0.0171	-0.0570	-0.2337	-0.1181	0.0050
31.	4.97	0.1393	0.2262	-0.0534	0.0256	-0.0042	-0.1546	-0.0385	0.0224
33.	4.99	0.1394	0.2260	-0.0293	0.0256	0.0067	-0.1538	-0.0391	0.0222

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
3.	0.05	0.0000	0.0423	0.0109	0.0415	0.0240	0.0256	0.0125
5.	-0.02	0.0000	0.0427	0.0315	0.0415	0.0252	0.0258	0.0132
7.	0.02	0.0000	0.0437	0.0317	0.0423	0.0242	0.0270	0.0140
27.	1.97	0.0000	0.0400	0.0273	0.0395	0.0253	0.0259	0.0145
29.	1.98	0.0000	0.0398	0.0264	0.0390	0.0243	0.0260	0.0141
31.	4.97	0.0000	0.0370	0.0276	0.0457	0.0336	0.0346	0.0222
33.	4.99	0.0000	0.0352	0.0270	0.0452	0.0328	0.0342	0.0216

DATE, 3-17-78 PROJECT NO. P41C-400  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REA10-5 VM D TT CNF16 SURVEY DATE PROPULSION WIND TUNNEL  
 YC-532. 126. 0.951 1433.7 801.4 2.997 997.882 507.1 81.6 12. 50. 2-16-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLU	C48
3.	0.05	-0.0243	-0.0013	0.0197	-0.0021	-0.0000	0.0012	0.0091
5.	-0.02	-0.0338	-0.0010	0.0192	-0.0021	-0.0001	0.0012	0.0092
7.	0.02	-0.0305	-0.0010	0.0186	-0.0019	-0.0001	0.0012	0.0092
27.	1.97	0.1598	-0.0015	0.0174	0.0037	-0.0001	0.0015	0.0094
29.	1.98	0.1844	-0.0014	0.0179	0.0029	-0.0001	0.0015	0.0092
31.	4.97	0.4846	-0.0026	0.0160	0.0035	0.0001	0.0022	0.0089
33.	4.99	0.4868	-0.0021	0.0160	0.0035	0.0002	0.0022	0.0089

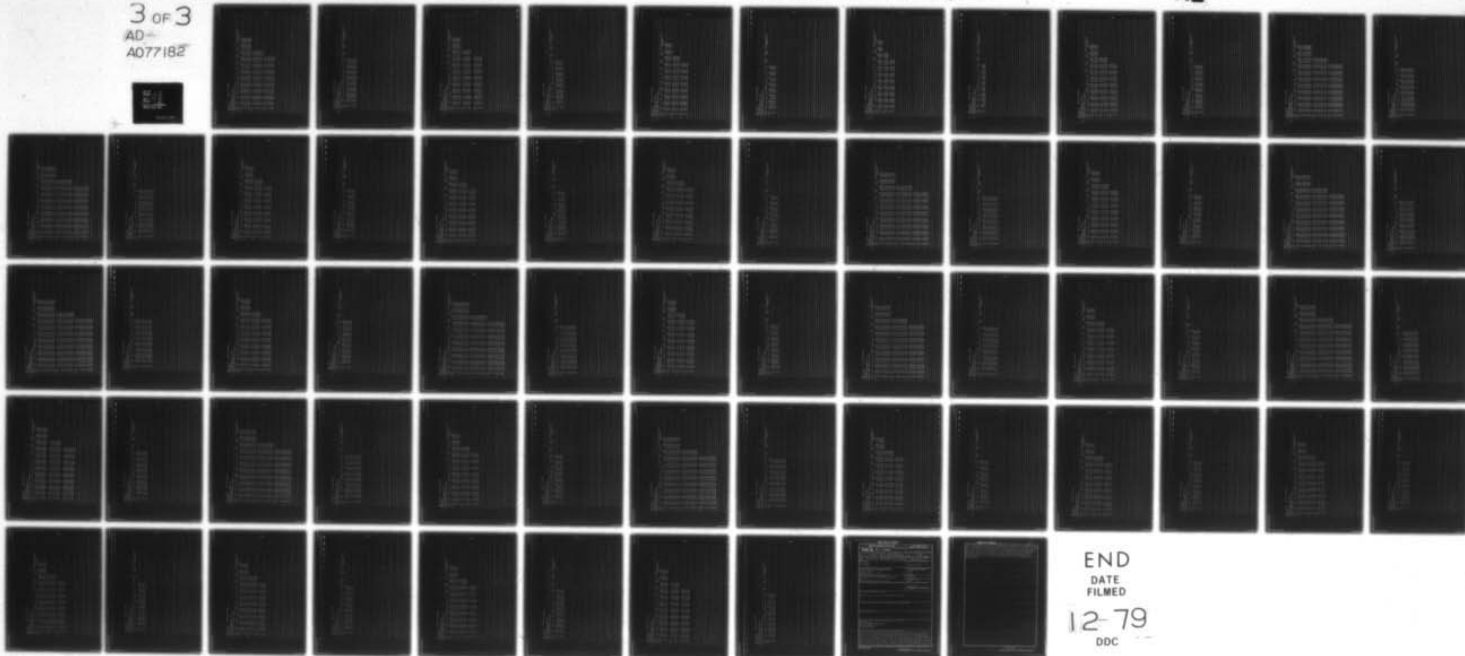


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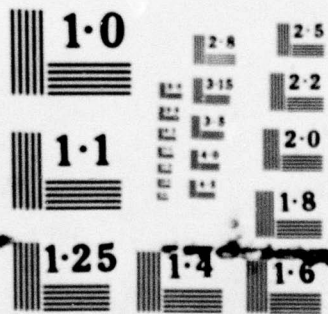
NIELSEN ENGINEERING AND RESEARCH INC MOUNTAIN VIEW CALIF F/G 20/4  
DATA REPORT FOR A TEST PROGRAM TO STUDY TRANSONIC FLOW FIELDS A--ETC(U)  
MAY 78 S S STAHARA , A J CRISALLI F44620-75-C-0047  
NEAR-TR-163-VOL-1 AFOSR-TR-79-1070 NL

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NATIONAL BUREAU OF STANDARDS  
MICROCOPY RESOLUTION TEST CHART



DATE. 3-17-78 PROJECT NO. P41C-403  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELUSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P RE10-6 VM 3 TT CMFIS SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 164. 1.050 1609.3 701.3 3.002 1897.519 581.6 84.9 12. 50. 2-17-78 TRANSONIC 4T

POINT	ALVA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	0.05	0.1375	0.0538	-0.0231	-0.0944	-0.1428	-0.1740	-0.1649	-0.1140	-0.1112	-0.0647
5.	0.05	0.1377	0.0534	-0.0229	-0.0937	-0.1428	-0.1752	-0.1653	-0.1127	-0.1092	-0.0624
7.	0.11	0.1389	0.0545	-0.0218	-0.0929	-0.1423	-0.1752	-0.1648	-0.1110	-0.1077	-0.0603
9.	-0.01	0.1370	0.0530	-0.0231	-0.0940	-0.1425	-0.1753	-0.1645	-0.1115	-0.1079	-0.0608
11.	2.33	0.1731	0.0836	0.0047	-0.0706	-0.1284	-0.1599	-0.1688	-0.1144	-0.1054	-0.0328
13.	1.96	0.1665	0.0778	-0.0010	-0.0764	-0.1323	-0.1720	-0.1717	-0.1141	-0.1014	-0.0289
15.	5.79	0.2296	0.1345	0.0484	-0.0310	-0.0944	-0.1444	-0.1641	-0.1195	-0.1223	0.0826
17.	4.88	0.2130	0.1185	0.0347	-0.0450	-0.1076	-0.1516	-0.1663	-0.1137	-0.1119	0.0670

POINT	ALVA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	0.05	-0.0219	0.1231	0.2856	-0.0370	-0.0774	-0.2059	-0.2380	-0.0638
5.	0.05	-0.0207	0.1233	0.1574	-0.0360	-0.0783	-0.2055	-0.2380	-0.0624
7.	0.11	-0.0181	0.1256	0.0587	-0.0351	-0.0774	-0.2039	-0.2367	-0.0609
9.	-0.01	-0.0209	0.1219	0.0456	-0.0363	-0.0755	-0.2053	-0.2384	-0.0632
11.	2.33	0.0570	0.1998	0.0510	-0.0087	-0.0327	-0.1593	-0.1535	-0.0013
13.	1.96	0.0478	0.1913	0.0574	-0.0142	-0.0339	-0.1571	-0.1724	-0.0111
15.	5.79	0.1764	0.2866	0.0995	0.0619	0.0977	-0.0449	0.0317	0.1083
17.	4.88	0.1531	0.2647	0.1184	0.0277	0.0734	-0.0841	-0.0612	0.0751

POINT	ALVA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	0.05	9.9900	-0.1921	-0.0139	0.0448	0.0425	0.0495	0.0769
5.	0.05	9.9900	-0.1950	-0.0194	0.0455	0.0413	0.0491	0.0778
7.	0.11	9.9900	-0.1943	-0.0207	0.0455	0.0319	0.0406	0.0783
9.	-0.01	9.9900	-0.1979	-0.0240	0.0467	0.0325	0.0308	0.0788
11.	2.33	9.9900	-0.1374	-0.0166	0.0128	0.0567	0.0733	0.0709
13.	1.96	9.9900	-0.1535	-0.0384	0.0230	0.0518	0.0335	0.0754
15.	5.79	9.9900	-0.0268	-0.0576	-0.0303	-0.0336	0.0145	0.0289
17.	4.88	9.9900	-0.0487	-0.0653	-0.0344	-0.0332	0.0341	0.0486

DATE. 3-17-78 PROJECT NO. PAIC-400

ARO. INC.

AEOC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REA10-5 VM Q IT CONFIS SURVEY DATE PROPULSION WIND TUNNEL  
YC-532. 15. 1.050 1409.3 701.3 3.002 1007.519 541.6 84.9 12. 50. 2-17-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLAF	CLN	CLLI	CAR
2.	0.05	-0.0321	-0.0013	0.0337	0.0053	0.0001	0.0019	0.0116
5.	0.05	-0.0312	-0.0015	0.0337	0.0052	0.0001	0.0020	0.0116
7.	0.11	-0.0260	-0.0014	0.0337	0.0052	0.0001	0.0020	0.0115
9.	-0.01	-0.0385	-0.0013	0.0337	0.0056	0.0001	0.0019	0.0115
11.	2.33	0.2048	-0.0018	0.0334	-0.0067	0.0000	0.0022	0.0112
13.	1.96	0.1651	-0.0016	0.0337	-0.0050	-0.0000	0.0021	0.0110
15.	5.79	0.5871	-0.0029	0.0293	-0.0329	0.0001	0.0018	0.0129
17.	4.88	0.4856	-0.0025	0.0302	-0.0254	0.0001	0.0019	0.0121



DATE, 3-17-78 PROJECT NO. P41C-400

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M OT P REX10-6 VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532 180. 1.100 1404.1 657.3 3.002 1131.357 55.1 86.8 12. 50. 2-17-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
5.	0.05	0.1563	0.0736	0.0027	-0.0641	-0.1219	-0.1610	-0.1540	-0.1109	-0.1109	-0.0691
7.	-0.00	0.1553	0.0723	0.0012	-0.0675	-0.1221	-0.1613	-0.1552	-0.1112	-0.1104	-0.0690
9.	2.34	0.1878	0.1023	0.0276	-0.0459	-0.1062	-0.1505	-0.1567	-0.1126	-0.1139	-0.0717
11.	1.44	0.1818	0.0977	0.0236	-0.0491	-0.1084	-0.1518	-0.1561	-0.1109	-0.1123	-0.0709
13.	5.75	0.2420	0.1522	0.0717	-0.0077	-0.0740	-0.1274	-0.1493	-0.1078	-0.1149	-0.0484
15.	4.89	0.2290	0.1407	0.0636	-0.0164	-0.0913	-0.1331	-0.1488	-0.1088	-0.1123	-0.0607

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
5.	0.05	0.0239	0.1732	0.1378	-0.0250	-0.0210	-0.1346	-0.1513	0.0143
7.	-0.00	0.0231	0.1709	0.1147	-0.0261	-0.0232	-0.1370	-0.1528	0.0129
9.	2.34	0.0776	0.2481	0.1174	0.0018	0.0283	-0.0854	-0.0730	0.0665
11.	1.94	0.0665	0.2371	0.1264	-0.0020	0.0308	-0.0842	-0.0878	0.0577
13.	5.75	0.2164	0.3322	0.1548	0.0840	0.1369	-0.0004	0.0440	0.1371
15.	4.89	0.1869	0.3131	0.1804	0.0542	0.1342	-0.0121	0.0179	0.1240

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
5.	0.05	0.9900	-0.1323	-0.1549	-0.0881	-0.0428	-0.0124	0.0099
7.	-0.00	0.9900	-0.1349	-0.1570	-0.0889	-0.0519	-0.0135	0.0093
9.	2.34	0.9900	-0.0859	-0.1189	-0.0708	-0.0395	-0.0373	0.0054
11.	1.94	0.9900	-0.0944	-0.1249	-0.0734	-0.0980	-0.0322	-0.0013
13.	5.75	0.9900	-0.0171	-0.0745	-0.0508	-0.0430	-0.0625	-0.0179
15.	4.89	0.9900	-0.0297	-0.0819	-0.0587	-0.0788	-0.0648	-0.0297

DATE, 3-17-78 PROJECT NO. PAIC-400

ARO, INC.

AERO DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REK10-5 VM D IT CONFIO SURVEY DATE: PROPULSION WIND TUNNEL  
 YC-532. 180. 1.100 1406.1 557.3 3.002 1131.357 557.1 86.8 12. 50. 2-17-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLWF	CLV	CLL	CAR
5.	0.05	-0.0271	-0.0011	0.0339	0.0047	-0.0001	0.0014	0.0136
7.	-0.00	-0.0330	-0.0011	0.0333	0.0048	-0.0001	0.0015	0.0136
9.	2.36	0.2032	-0.0019	0.0336	-0.0086	-0.0002	0.0015	0.0136
11.	1.94	0.1615	-0.0016	0.0338	-0.0059	-0.0002	0.0016	0.0133
13.	5.75	0.4594	-0.0029	0.0307	-0.0338	-0.0001	0.0013	0.0136
15.	4.89	0.4702	-0.0025	0.0311	-0.0267	-0.0001	0.0014	0.0136



DATE, 3-17-78 PROJECT NO. PAIC-400  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELUSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	M	BT	P	REX10-6	VM	Q	TT	CONFIG	SURVEY	DATE	PROPULSION WIND TUNNEL
YC-532	32	0.022	1443.9	833.9	2.097	976.3	33.495.7	80.1	13	50	2-16-78	TRANSONIC AT
POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10	
5.	0.04	0.0406	-0.0393	-0.1099	-0.1005	-0.1542	-0.0637	-0.0558	-0.0086	0.0013	0.0237	
7.	0.05	0.0381	-0.0467	-0.1160	-0.1683	-0.1676	-0.0637	-0.0600	-0.0130	-0.0021	0.0200	
9.	0.04	0.0382	-0.0427	-0.1135	-0.1664	-0.1544	-0.0634	-0.0583	-0.0116	-0.0009	0.0226	
11.	2.30	0.0724	-0.0136	-0.0906	-0.1501	-0.1591	-0.0637	-0.0561	-0.0012	0.0199	0.0598	
13.	5.76	0.1309	0.0409	-0.0391	-0.1035	-0.1207	-0.0391	-0.0307	0.0360	0.0692	0.1253	
POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18			
5.	0.04	0.0201	-0.0096	-0.0848	-0.0599	-0.1686	-0.2240	-0.1980	-0.0707			
7.	0.06	0.0163	-0.0138	-0.0905	-0.0731	-0.1576	-0.2246	-0.2345	-0.0772			
9.	0.06	0.0189	-0.0110	-0.0870	-0.0712	-0.1553	-0.2249	-0.2289	-0.0761			
11.	2.30	0.0682	0.0019	-0.0334	-0.0170	-0.1030	-0.1248	-0.1240	-0.0966			
13.	5.76	0.1426	0.1225	0.0679	0.0698	-0.0159	-0.0245	-0.0488	-0.0389			
POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25				
5.	0.04	0.0900	0.0233	0.0154	0.0342	0.0229	0.0154	0.0102				
7.	0.06	0.0900	0.0215	0.0137	0.0317	0.0198	0.0131	0.0064				
9.	0.04	0.0900	0.0230	0.0149	0.0329	0.0214	0.0141	0.0076				
11.	2.30	0.0900	0.0235	0.0127	0.0333	0.0215	0.0141	0.0077				
13.	5.76	0.0900	0.0320	0.0155	0.0409	0.0282	0.0216	0.0139				

DATE. 3-17-78 PROJECT NO. P41C-V00

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REX10-6 VM Q TT CNFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 32. 0.022 1443.9 833.9 2.907 970.313 495.7 80.1 13. 50. 2-16-78 TRANSOVIC 47

POINT	ALFA	CNF	CV	CAF	CLMF	CLV	CLU	CAR
5.	0.04	-0.0430	-0.0033	0.0240	0.0127	0.0017	0.0013	0.0091
7.	-0.06	-0.0537	-0.0037	0.0238	0.0128	0.0017	0.0012	0.0395
9.	0.04	-0.0437	-0.0036	0.0240	0.0132	0.0017	0.0012	0.0094
11.	2.30	0.1758	-0.0057	0.0221	0.0254	0.0017	0.0010	0.0088
13.	5.76	0.5479	-0.0077	0.0157	0.0278	0.0011	0.0009	0.0094



DATE, 3-17-78 PROJECT NO. P41C-W00  
 ARO, INC.  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P RE110-6 VM 3 TT CNF10 SURVEY DATEI PROPUSSION WIND TUNNEL  
 1C-512. 51. 0.949 1442.5 807.6 3.005 997.826 509.5 82.9 13. 50. 2-16-78 TRANSONIC 4T

POINT ALFA CPS1 CPS2 CPS3 CPS4 CPS5 CPS6 CPS7 CPS8 CPS9 CPS10  
 4. 5.74 0.1406 0.0476 -0.0386 -0.1131 -0.1532 -0.0315 -0.0195 0.0496 0.1436  
 6. 2.03 0.0764 -0.0106 -0.0430 -0.1571 -0.2870 -0.0432 -0.0438 0.0101 0.0323 0.0706  
 8. 0.05 0.0466 -0.0373 -0.1163 -0.1765 -0.2179 -0.0510 -0.0469 0.0010 0.0152 0.0491

POINT ALFA CPS11 CPS12 CPS13 CPS14 CPS15 CPS16 CPS17 CPS18  
 4. 5.74 0.1622 0.1416 0.0643 0.0863 -0.0056 -0.0217 -0.0605 -0.1369  
 6. 2.03 0.0783 0.0531 -0.0239 -0.0039 -0.0967 -0.1543 -0.1734 -0.1600  
 8. 0.05 0.0387 0.0091 -0.0732 -0.0499 -0.1246 -0.1956 -0.2609 -0.2400

POINT ALFA CPS19 CPS20 CPS21 CPS22 CPS23 CPS24 CPS25  
 4. 5.74 9.9900 0.0270 0.0227 0.0523 0.0425 0.0329 0.0246  
 6. 2.03 9.9900 0.0361 0.0299 0.0470 0.0331 0.0227 0.0138  
 8. 0.05 9.9900 0.0403 0.0369 0.0495 0.0349 0.0235 0.0150

DATE, 3-17-78 PROJECT NO. P41C-V03  
 AHO, INC.  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REA10-6 VM Q TT CNF16 SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 51. 0.049 1442.5 807.6 3.005 997.629 505.5 52.0 13. 50. 2-16-78 TRANSONIC AT

POINT	ALFA	CNF	CY	CAF	CLMF	CLV	CLL	CAR
4.	5.74	0.5547	-0.0083	0.0238	0.0170	0.0011	0.0018	0.0091
5.	2.03	0.1553	-0.0052	0.0272	0.0203	0.0015	0.0010	0.0086
6.	0.05	-0.0339	-0.0035	0.0285	0.0139	0.0016	0.0009	0.0084



DATE: 3-17-78 PROJECT NO. P41C-V00

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REX10-6 VM Q TT CMFIS SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 76. 1.052 1416.0 702.7 3.005 1089.609 563.9 86.0 13. 50. 2-16-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	0.04	0.1320	0.0508	-0.0244	-0.0963	-0.1463	-0.1778	-0.1664	-0.1123	-0.1079	-0.0527
5.	0.08	0.1345	0.0525	-0.0235	-0.0951	-0.1452	-0.1754	-0.1647	-0.1165	-0.1133	-0.0562
7.	2.36	0.1674	0.0811	0.0020	-0.0745	-0.1320	-0.1701	-0.1703	-0.1177	-0.1085	0.0089
9.	1.95	0.1607	0.0743	-0.0039	-0.0806	-0.1374	-0.1742	-0.1733	-0.1179	-0.1057	0.0061
11.	5.79	0.2225	0.1298	0.0439	-0.0371	-0.1003	-0.1509	-0.1659	-0.1256	-0.1263	0.1491
13.	4.88	0.2100	0.1175	0.0366	-0.0453	-0.1078	-0.1562	-0.1659	-0.1219	-0.1212	0.1162

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
3.	0.04	0.0375	0.0772	0.0464	0.0366	-0.0456	-0.0636	-0.1625	-0.2653
5.	0.08	0.0371	0.0810	0.0483	0.0366	-0.0428	-0.0549	-0.1628	-0.2649
7.	2.36	0.1163	0.1298	0.0757	0.0844	0.0381	-0.0208	-0.1203	-0.2113
9.	1.95	0.1062	0.1212	0.0586	0.0688	0.0267	-0.0275	-0.1217	-0.2217
11.	5.79	0.2159	0.2171	0.1505	0.1888	0.0313	0.0459	-0.0208	-0.0648
13.	4.88	0.1905	0.1937	0.1409	0.1710	0.0379	0.0235	-0.0593	-0.1091

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
3.	0.04	0.0900	-0.2850	-0.1173	-0.0178	0.0459	0.0851	0.0690
5.	0.08	0.0900	-0.2748	-0.1029	-0.0166	0.0312	0.0850	0.0678
7.	2.36	0.0900	-0.2279	-0.0960	-0.0326	0.0077	0.0754	0.0644
9.	1.95	0.0900	-0.2552	-0.1123	-0.0269	0.0102	0.0732	0.0671
11.	5.79	0.0900	-0.1471	-0.0501	-0.0743	-0.0115	-0.0529	0.0272
13.	4.88	0.0900	-0.1700	-0.0520	-0.0546	-0.0089	-0.0018	0.0609

DATE. 3-17-78 PROJECT NO. PAIC-400

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P RE10-6 VM 2 TT CNFIG SURVEY DATE PROPULSION WIND TUNNEL  
 YC-532. 76. 1.052 1416.0 702.7 3.005 1059.609 543.9 86.0 13. 50. 2-16-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLWF	CLN	CLU	CAB
3.	0.04	-0.0258	-0.0047	0.0464	0.0317	0.0013	0.0025	0.0057
5.	0.08	-0.0215	-0.0050	0.0463	0.0317	0.0014	0.0027	0.0058
7.	2.16	0.2125	-0.0062	0.0445	0.0206	0.0011	0.0040	0.0059
9.	1.95	0.1689	-0.0062	0.0452	0.0224	0.0011	0.0040	0.0058
11.	5.79	0.5732	-0.0069	0.0385	-0.0035	0.0004	0.0029	0.0045
13.	4.86	0.4769	-0.0064	0.0401	0.0051	0.0005	0.0035	0.0075



DATE: 3-17-78 PROJECT NO. P41C-400

ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART W PT P REX10-6 VM Q TT CMFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 92. 1.100 1348.4 654.9 3.091 1129.578 556.8 85.3 13. 50. 2-16-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
4.	5.77	0.2371	0.1488	0.0720	-0.0107	-0.0767	-0.1246	-0.1486	-0.1111	-0.1167	0.0003
6.	4.90	0.2224	0.1169	0.0602	-0.0194	-0.0847	-0.1367	-0.1524	-0.1103	-0.1165	-0.0044
8.	4.98	0.2240	0.1165	0.0617	-0.0184	-0.0841	-0.1360	-0.1523	-0.1100	-0.1163	0.0014
10.	5.21	0.2275	0.1197	0.0648	-0.0157	-0.0815	-0.1322	-0.1508	-0.1101	-0.1163	0.0147
12.	5.21	0.2269	0.1195	0.0642	-0.0164	-0.0827	-0.1328	-0.1519	-0.1102	-0.1165	0.0132
14.	2.35	0.1817	0.0976	0.0289	-0.0479	-0.1074	-0.1505	-0.1583	-0.1154	-0.1139	-0.0593
16.	1.95	0.1778	0.0951	0.0255	-0.0499	-0.1091	-0.1502	-0.1571	-0.1140	-0.1102	-0.0612
18.	2.00	0.1762	0.0925	0.0232	-0.0525	-0.1113	-0.1535	-0.1589	-0.1170	-0.1138	-0.0635
20.	0.07	0.1506	0.0715	0.0008	-0.0683	-0.1246	-0.1601	-0.1593	-0.1126	-0.1117	-0.0687
22.	0.17	0.1507	0.0725	0.0017	-0.0680	-0.1242	-0.1598	-0.1591	-0.1131	-0.1115	-0.0689
24.	0.00	0.1493	0.0707	-0.0004	-0.0693	-0.1256	-0.1609	-0.1579	-0.1122	-0.1128	-0.0689

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
4.	5.77	0.2625	0.2672	0.2009	0.2186	0.1120	0.0533	0.0246	0.0275
6.	4.90	0.2380	0.2487	0.1821	0.1987	0.0996	0.0447	0.0042	-0.0239
8.	4.98	0.2411	0.2510	0.1843	0.2012	0.1007	0.0503	0.0059	-0.0201
10.	5.21	0.2470	0.2557	0.1892	0.2081	0.1044	0.0553	0.0102	-0.0080
12.	5.21	0.2462	0.2551	0.1987	0.2050	0.1040	0.0544	0.0097	-0.0089
14.	2.35	0.1628	0.2009	0.1332	0.1117	0.0472	0.0094	-0.0491	-0.1075
16.	1.95	0.1538	0.1865	0.1299	0.1042	0.0302	-0.0053	-0.0553	-0.1140
18.	2.00	0.1513	0.1844	0.1274	0.1032	0.0296	-0.0076	-0.0576	-0.1164
20.	0.07	0.0887	0.1024	0.1031	0.0696	-0.0365	-0.0558	-0.0896	-0.1614
22.	0.17	0.0898	0.1045	0.1047	0.0709	-0.0539	-0.0523	-0.0890	-0.1595
24.	0.00	0.0893	0.1009	0.1017	0.0682	-0.0589	-0.0577	-0.0903	-0.1631

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
4.	5.77	0.9900	-0.1180	-0.0695	-0.0630	-0.1310	-0.0971	0.0003
6.	4.90	0.9900	-0.1255	-0.0870	-0.0616	-0.1483	-0.1033	0.0024
8.	4.98	0.9900	-0.1251	-0.0855	-0.0612	-0.1489	-0.1031	0.0028
10.	5.21	0.9900	-0.1213	-0.0794	-0.0614	-0.1485	-0.1022	0.0016
12.	5.21	0.9900	-0.1220	-0.0804	-0.0620	-0.1494	-0.1032	0.0006
14.	2.35	0.9900	-0.1351	-0.1772	-0.0767	-0.1309	-0.1001	0.0159
16.	1.95	0.9900	-0.1723	-0.1905	-0.0815	-0.1289	-0.0851	0.0234
18.	2.00	0.9900	-0.1734	-0.1903	-0.0829	-0.1316	-0.0908	0.0184
20.	0.07	0.9900	-0.2026	-0.2467	-0.1067	-0.1276	-0.1010	0.0251
22.	0.17	0.9900	-0.2006	-0.2434	-0.1046	-0.1291	-0.1012	0.0250
24.	0.00	0.9900	-0.2048	-0.2508	-0.1090	-0.1261	-0.0953	0.0242

DATE. 3-17-78 PROJECT NO. P41C-V00

ASO. INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REX10-6 VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 92. 1.100 1398.4 654.9 3.001 1129.578 554.8 85.3 13. 50. 2-16-78 TRANSOVIC 4T

POINT	ALFA	CNF	CY	CAF	CLMF	CLV	CLU	CAN
4.	5.77	0.5475	-0.0067	0.0402	-0.0098	-0.0002	0.0012	0.0102
6.	4.90	0.4590	-0.0064	0.0413	-0.0010	0.0001	0.0015	0.0094
8.	4.98	0.4691	-0.0063	0.0412	-0.0021	0.0000	0.0014	0.0099
10.	5.21	0.4926	-0.0064	0.0408	-0.0045	-0.0001	0.0012	0.0100
12.	5.21	0.4930	-0.0065	0.0408	-0.0046	-0.0001	0.0012	0.0100
14.	2.35	0.1986	-0.0057	0.0442	-0.0182	0.0007	0.0027	0.0093
16.	1.95	0.1573	-0.0052	0.0449	0.0200	0.0006	0.0027	0.0090
18.	2.00	0.1627	-0.0053	0.0445	0.0199	0.0006	0.0027	0.0093
20.	0.07	-0.0277	-0.0032	0.0461	0.0287	0.0005	0.0022	0.0089
22.	0.17	-0.0169	-0.0033	0.0460	0.0284	0.0005	0.0023	0.0090
24.	0.00	-0.0345	-0.0033	0.0463	0.0293	0.0005	0.0022	0.0089



DATE: 3-20-78 PROJECT NO. PLIC-NOO  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELUSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	W	DT	P	REIN-A	VM	Q	IT	CONFIG	SURVEY	DATE	PROPELUSION WIND TUNNEL
TC-532	A45	0.027	1451.1	M3.2	3.004	974.842	500.0	82.1	21.	50.	2-21-78	TRANSONI Y
POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10	
4	0.05	0.0304	0.0440	0.1157	0.1726	0.1714	0.0498	0.0466	0.0227	0.0145	0.0007	
6	0.06	0.0304	0.0440	0.1218	0.1742	0.1740	0.0730	0.0703	0.0245	0.0189	0.0044	
8	1.17	0.0566	0.0293	0.1039	0.1676	0.1676	0.0643	0.0643	0.0186	0.0049	0.0100	
12	0.09	0.0517	0.0342	0.1084	0.1674	0.1703	0.0712	0.0690	0.0219	0.0090	0.0137	
14	2.70	0.0747	0.0144	0.0907	0.1523	0.1609	0.0646	0.0640	0.0124	0.0041	0.0368	
16	1.04	0.0691	0.0184	0.0908	0.1547	0.1643	0.0671	0.0655	0.0152	0.0021	0.0339	
18	3.45	0.0210	0.0027	0.0756	0.1393	0.1527	0.0600	0.0584	0.0035	0.0207	0.0612	
20	2.94	0.0836	0.0050	0.0636	0.1444	0.1542	0.0636	0.0619	0.0091	0.0120	0.0505	
22	4.53	0.1132	0.0208	0.0592	0.1246	0.1412	0.0516	0.0500	0.0097	0.0382	0.0855	
24	3.01	0.1000	0.0080	0.0705	0.1347	0.1407	0.0675	0.0663	0.0081	0.0745	0.0464	
26	5.74	0.1213	0.0378	0.0633	0.1096	0.1286	0.0637	0.0613	0.0224	0.0556	0.1074	
28	4.89	0.1148	0.0241	0.0658	0.1209	0.1387	0.0562	0.0446	0.0120	0.0419	0.0899	
POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18	CPS19	CPS20	
4	0.05	0.0117	0.0361	0.0540	0.0736	0.1075	0.1145	0.1039	0.0558			
6	0.06	0.0146	0.0407	0.0596	0.0785	0.1134	0.1216	0.1134	0.0629			
8	1.17	0.0144	0.0065	0.0218	0.0699	0.0787	0.0676	0.0846	0.0496			
12	0.09	0.0087	0.0131	0.0304	0.0841	0.0863	0.0939	0.0805	0.0521			
14	2.70	0.0406	0.0219	0.0081	0.1106	0.0515	0.0608	0.0635	0.0401			
16	1.04	0.0328	0.0135	0.0033	0.0262	0.0587	0.0693	0.0713	0.0474			
18	3.44	0.0674	0.0506	0.0346	0.0189	0.0261	0.0348	0.0426	0.0287			
20	2.94	0.0851	0.0370	0.0211	0.0849	0.0373	0.0671	0.0527	0.0349			
22	4.53	0.0854	0.0799	0.0639	0.0478	0.0017	0.0091	0.0211	0.0151			
24	3.01	0.0782	0.0620	0.0455	0.0299	0.0141	0.0260	0.0340	0.0243			
26	5.74	0.1210	0.1064	0.0905	0.0740	0.0248	0.0130	0.0017	0.0031			
28	4.89	0.1024	0.0850	0.0705	0.0543	0.0074	0.0036	0.0160	0.0122			
POINT	ALFA	CPS21	CPS22	CPS23	CPS24	CPS25	CPS26	CPS27	CPS28	CPS29	CPS30	
4	0.05	0.0017	0.0258	0.0001	0.0184	0.0011	0.0073	0.0197				
6	0.06	0.0042	0.0224	0.0054	0.0158	0.0022	0.0113	0.0233				
8	1.17	0.0001	0.0210	0.0017	0.0194	0.0011	0.0049	0.0154				
12	0.09	0.0020	0.0244	0.0055	0.0167	0.0000	0.0042	0.0207				
14	2.70	0.0041	0.0290	0.0071	0.0201	0.0033	0.0042	0.0140				
16	1.04	0.0025	0.0276	0.0067	0.0195	0.0021	0.0047	0.0182				
18	3.44	0.0090	0.0324	0.0087	0.0273	0.0040	0.0037	0.0155				
20	2.94	0.0041	0.0297	0.0075	0.0209	0.0033	0.0035	0.0171				
22	4.53	0.0171	0.0374	0.0123	0.0272	0.0083	0.0069	0.0119				
24	3.01	0.0117	0.0339	0.0081	0.0213	0.0053	0.0037	0.0151				
26	5.74	0.0214	0.0394	0.0134	0.0114	0.0013	0.0013	0.0107				
28	4.89	0.0175	0.0373	0.0118	0.0275	0.0084	0.0064	0.0118				

DATE, 3-20-78 PROJECT NO. P41C-400  
 ARO, INC.  
 AERO DIVISION  
 A SUPERSONIC CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M PT P RE10-6 VM Q TT CONFIG SURVEY DATE PROPUSSION WIND TUNNEL  
 TC-412, 454, 0.027 1451.1 411.2 3.004 076.443 500.0 82.1 21, 50, 2-21-78 TRANSONIC 47

POINT	ALFA	CNF	CY	CAF	CLMF	CLW	CLL	C48
4.	0.05	-0.0237	-0.0010	0.0166	-0.0067	-0.0001	0.0026	0.0098
6.	-0.03	-0.0291	-0.0009	0.0141	-0.0069	-0.0001	0.0026	0.0103
8.	1.17	0.0786	-0.0011	0.0172	0.0016	-0.0002	0.0019	0.0099
12.	0.99	0.0623	-0.0011	0.0167	0.0003	-0.0002	0.0021	0.0101
14.	2.30	0.1681	-0.0011	0.0160	0.0079	-0.0002	0.0020	0.0099
16.	1.94	0.1424	-0.0011	0.0162	0.0066	-0.0002	0.0026	0.0108
18.	3.46	0.3271	-0.0016	0.0138	0.0133	-0.0002	0.0021	0.0098
20.	2.94	0.2948	-0.0014	0.0145	0.0106	-0.0002	0.0026	0.0106
22.	4.59	0.4332	-0.0016	0.0116	0.0167	-0.0003	0.0023	0.0097
24.	3.01	0.3463	-0.0019	0.0125	0.0155	-0.0003	0.0023	0.0099
26.	5.74	0.5724	-0.0022	0.0099	0.0115	-0.0004	0.0023	0.0096
28.	4.49	0.4690	-0.0019	0.0106	0.0156	-0.0003	0.0023	0.0097



DATE: 3-29-78 PROJECT NO. P41C-NOO  
 ARCO, INC.  
 AEDC DIVISION  
 A SUPPLEMENT CORPORATION COMPANY  
 PROPELLION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M DT P HEX10-A VM Q TT CONFID SURVEY DATE PROPELLION WIND TUNNEL  
 TC-512. 655. 0.025 1844.1 816.4 3.001 976.174 501.1 83.0 21. 50. 2-21-78 TRANSONIC 67

POINT	ALFA	CP51	CP52	CP53	CP54	CP55	CP56	CP57	CP58	CP59	CP510
2.	5.00	0.1191	0.0265	-0.0537	-0.1195	-0.1371	-0.0493	-0.0475	0.0136	0.0437	0.0924
4.	4.01	0.1104	0.0094	-0.0700	-0.1150	-0.1498	-0.0578	-0.0444	0.0008	0.0273	0.0704
6.	3.00	0.0840	-0.0050	-0.0825	-0.1449	-0.1579	-0.0637	-0.0618	-0.0086	0.0138	0.0516
8.	2.00	0.0442	-0.0141	-0.0961	-0.1567	-0.1664	-0.0672	-0.0464	-0.0159	0.0020	0.0323
10.	1.00	0.0527	-0.0327	-0.1075	-0.1452	-0.1604	-0.0702	-0.0486	-0.0219	-0.0092	0.0144
12.	-0.00	0.0170	-0.0454	-0.1175	-0.1714	-0.1708	-0.0713	-0.0473	-0.0250	-0.0170	-0.0034

POINT	ALFA	CP511	CP512	CP513	CP514	CP515	CP516	CP517	CP518
2.	5.00	0.1044	0.0092	0.0729	0.0571	0.0100	-0.0010	-0.0142	-0.0112
4.	4.01	0.0704	0.0634	0.0473	0.0307	-0.0194	-0.0245	-0.0741	-0.0210
6.	3.00	0.0422	0.0387	0.0229	0.0062	-0.0307	-0.0461	-0.0510	-0.0343
8.	2.00	0.0323	0.0132	-0.0013	-0.0195	-0.0500	-0.0608	-0.0712	-0.0446
10.	1.00	0.0082	-0.0128	-0.0237	-0.0477	-0.0830	-0.0930	-0.0876	-0.0513
12.	-0.00	-0.0140	-0.0190	-0.0559	-0.0755	-0.1071	-0.1141	-0.1007	-0.0543

POINT	ALFA	CP519	CP520	CP521	CP522	CP523	CP524	CP525
2.	5.00	0.0184	0.0377	0.0120	0.0277	0.0002	-0.0002	-0.0116
4.	4.01	0.0114	0.0329	0.0088	0.0233	0.0049	-0.0040	-0.0146
6.	3.00	0.0060	0.0103	0.0072	0.0200	0.0038	-0.0054	-0.0143
8.	2.00	0.0013	0.0071	0.0062	0.0189	0.0014	-0.0070	-0.0175
10.	1.00	-0.0014	0.0040	0.0040	0.0176	0.0004	-0.0080	-0.0146
12.	-0.00	-0.0024	0.0048	0.0072	0.0178	0.0004	-0.0076	-0.0146

DATE: 3-20-78 PROJECT NO. 941C-000  
 ARCO, INC.  
 AFDC DIVISION  
 A SYRACUSE CORPORATION COMPANY  
 PROPELSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PLOT M DT P REIN-A V4 Q YT CONFIG SURVEY DATE PROPELSION WIND TUNNEL  
 TC-512. 644. 0.025 1454.1 436.4 3.001 976.174 501.1 83.6 21. 50. 2-21-78 TRANSONIC 47

POINT	ALFA	CAF	CV	CAF	CLMF	CLN	CLL	CAR
2.	5.00	0.4840	-0.0021	0.0106	0.0152	-0.0003	0.0023	0.0097
4.	4.01	0.3667	-0.0014	0.0120	0.0154	-0.0003	0.0023	0.0100
6.	3.00	0.2408	-0.0014	0.0148	0.0112	-0.0003	0.0029	0.0109
8.	2.00	0.1564	-0.0013	0.0155	0.0063	-0.0002	0.0026	0.0101
10.	1.00	0.0623	-0.0008	0.0141	0.0002	-0.0002	0.0021	0.0100
12.	-0.00	-0.0292	-0.0008	0.0157	-0.0049	-0.0002	0.0024	0.0100



DATE, 3-20-78 PROJECT NO. P41C-N00  
 ARO, INC.  
 ARO DIVISION  
 A SHERIDAN CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M PT P RE10-6 VM Q TT CONFIG SURVEY DATE PROPUSSION WIND TUNNEL  
 YC-532, A98, 0.952 1414.7 002.7 3.001 1000.310 509.7 82.7 21. 50. 2-22-78 TRANSONIC AT

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
5.	0.01	0.0506	-0.0161	-0.1102	-0.1737	-0.2247	-0.0516	-0.0461	-0.0065	0.0012	0.0151
8.	1.02	0.0649	-0.0232	-0.1054	-0.1661	-0.2180	-0.0537	-0.0466	-0.0040	0.0006	0.0314
10.	2.02	0.0819	-0.0093	-0.0927	-0.1564	-0.2081	-0.0524	-0.0457	-0.0037	0.0106	0.0495
12.	3.02	0.0969	0.0039	-0.0810	-0.1492	-0.1948	-0.0506	-0.0433	0.0074	0.0208	0.0680
14.	4.03	0.1140	0.0196	-0.0663	-0.1374	-0.1833	-0.0410	-0.0416	0.0161	0.0433	0.0880
16.	5.03	0.1291	0.0342	-0.0526	-0.1266	-0.1744	-0.0384	-0.0372	0.0260	0.0571	0.1075

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
5.	0.01	0.0033	-0.0228	-0.0420	-0.0657	-0.1018	-0.1251	-0.1449	-0.1503
8.	1.02	0.0264	0.0037	-0.0150	-0.0362	-0.0773	-0.0943	-0.1231	-0.1282
10.	2.02	0.0499	0.0293	0.0108	-0.0093	-0.0531	-0.0718	-0.0999	-0.1084
12.	3.02	0.0724	0.0540	0.0345	0.0149	-0.0305	-0.0492	-0.0794	-0.0944
14.	4.03	0.0959	0.0782	0.0608	0.0415	-0.0074	-0.0265	-0.0554	-0.0631
16.	5.03	0.1195	0.1021	0.0846	0.0655	0.0145	-0.0042	-0.0359	-0.0491

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
5.	0.01	-0.0049	0.0378	0.0243	0.0322	0.0110	-0.0014	-0.0136
8.	1.02	-0.0043	0.0345	0.0204	0.0314	0.0104	-0.0014	-0.0124
10.	2.02	-0.0071	0.0348	0.0192	0.0318	0.0119	-0.0006	-0.0111
12.	3.02	-0.0065	0.0340	0.0186	0.0328	0.0131	0.0002	-0.0107
14.	4.03	-0.0012	0.0358	0.0183	0.0352	0.0153	0.0031	-0.0072
16.	5.03	-0.0006	0.0334	0.0171	0.0366	0.0177	0.0043	-0.0055

DATE 3-20-78 PROJECT NO. 941C-000

ARO, INC.

AFRC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REX10-A VM Q TT CONFID SURVEY DATE PROPULSION WIND TUNNEL  
TC-519. 608. 0.052 1418.7 802.7 3.001 1000.310 500.7 82.7 21. 50. 2-22-78 TRANSONIC 47

POINT	ALFA	CNF	CY	CAP	CLMF	CLN	CLL	CAR
6.	0.01	-0.0278	-0.0011	0.0210	-0.0085	0.0000	0.0027	0.0100
8.	1.02	0.0680	-0.0010	0.0213	-0.0033	-0.0001	0.0026	0.0100
10.	2.02	0.1635	-0.0017	0.0207	0.0014	-0.0000	0.0019	0.0100
12.	3.02	0.2680	-0.0018	0.0195	0.0020	-0.0001	0.0021	0.0100
14.	4.03	0.3763	-0.0019	0.0179	0.0029	-0.0001	0.0025	0.0100
16.	5.03	0.4937	-0.0021	0.0167	0.0011	-0.0002	0.0024	0.0100



DATE: 1-28-78 PROJECT NO. 641C-400

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

POPULSION WIND TUNNEL

ABUQ AIR FORCE STATION, TENNESSEE

TEST PART M PT P DEXIN-6 VM Q TT CONFID SURVEY DATE POPULSION WIND TUNNEL  
TC-532. 744. 1.050 1405.0 690.1 2.904 1087.479 540.0 84.8 21. 50. 2-22-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	-0.02	0.1345	0.0505	-0.0245	-0.0053	-0.1453	-0.1806	-0.1669	-0.1108	-0.1643	-0.0582
4.	0.08	0.1408	0.0625	-0.0136	-0.0863	-0.1324	-0.1700	-0.1700	-0.1170	-0.1091	-0.0552
6.	1.00	0.1438	0.0749	-0.0030	-0.0776	-0.1347	-0.1760	-0.1732	-0.1171	-0.1095	-0.0454
8.	2.00	0.1403	0.0894	0.0101	-0.0645	-0.1240	-0.1753	-0.1716	-0.1189	-0.1100	-0.0385
10.	4.01	0.1364	0.1023	0.0211	-0.0563	-0.1147	-0.1644	-0.1740	-0.1221	-0.1203	-0.0258
12.	5.01	0.1115	0.1162	0.0336	-0.0444	-0.1059	-0.1620	-0.1741	-0.1258	-0.1297	-0.0010

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	-0.02	-0.0290	-0.0410	-0.0536	-0.0486	-0.0912	-0.1076	-0.1234	-0.1434
4.	0.08	-0.0080	-0.0154	-0.0254	-0.0391	-0.0654	-0.0774	-0.0954	-0.1187
6.	1.00	0.0184	0.0125	0.0031	-0.0095	-0.0377	-0.0523	-0.0663	-0.0943
8.	2.00	0.0500	0.0447	0.0360	0.0236	-0.0073	-0.0267	-0.0303	-0.0487
10.	4.01	0.0790	0.0782	0.0691	0.0578	0.0222	0.0155	-0.0025	-0.0134
12.	5.01	0.1134	0.1159	0.1086	0.1021	0.0719	0.0602	0.0486	0.0308

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	-0.02	-0.1791	-0.2095	-0.0532	0.0475	0.0777	0.0850	0.0772
4.	0.08	-0.1570	-0.1837	-0.0228	0.0355	0.0710	0.0868	0.0738
6.	1.00	-0.1375	-0.1565	-0.0158	0.0133	0.0545	0.0732	0.0675
8.	2.00	-0.1087	-0.0852	-0.0457	-0.0090	0.0333	0.0716	0.0627
10.	4.01	-0.0414	-0.0681	-0.0694	-0.0216	0.0213	0.0560	0.0497
12.	5.01	-0.0294	-0.0576	-0.0704	-0.0249	0.0080	0.0330	0.0330

DATE: 3-28-78 PROJECT NO. P41C-N00

ARO, INC.

AEC DIVISION

A SUPERIOR CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PLOT W DT P BEAR-6 VM 0 IT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 74. 1.056 1455.0 600.1 2.004 1047.470 440.0 21. 50. 2-22-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLL	CAR
2.	-0.02	-0.0467	-0.0009	0.0336	0.0024	0.0000	0.0020	0.0108
4.	0.08	0.0684	-0.0010	0.0341	-0.0032	0.0000	0.0019	0.0106
6.	1.00	0.1657	-0.0013	0.0340	-0.0084	-0.0001	0.0019	0.0108
8.	2.00	0.2750	-0.0015	0.0330	-0.0140	-0.0001	0.0014	0.0100
10.	4.01	0.3945	-0.0020	0.0313	-0.0228	-0.0002	0.0014	0.0114
12.	4.01	0.4154	-0.0019	0.0303	-0.0315	-0.0002	0.0014	0.0120



DATE. 3-17-78 PROJECT NO. P4LC-W00

ARO. INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M AT P HX10-6 VM Q IT CNFIG SURVEY DATE PROPULSION WIND TUNNEL  
YC-532. 431. 0.028 1430.5 819.9 2.975 976.078 494.6 90.4 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
4.	0.04	0.0428	-0.0470	-0.1163	-0.1715	-0.1391	-0.0737	-0.0658	-0.0201	-0.0102	0.0096
6.	-0.02	0.0429	-0.0436	-0.1142	-0.1671	-0.1555	-0.0720	-0.0645	-0.0195	-0.0100	0.0073
8.	1.17	0.0592	-0.0313	-0.1023	-0.1601	-0.1533	-0.0716	-0.0653	-0.0152	-0.0010	0.0266
10.	2.30	0.0571	-0.0311	-0.1041	-0.1608	-0.1538	-0.0712	-0.0648	-0.0160	-0.0021	0.0244
12.	2.30	0.0803	-0.0114	-0.0836	-0.1432	-0.1518	-0.0635	-0.0577	-0.0043	0.0153	0.0506
14.	1.96	0.0711	-0.0212	-0.0938	-0.1540	-0.1505	-0.0635	-0.0635	-0.0110	0.0067	0.0406
16.	3.44	0.0957	0.0021	-0.0727	-0.1352	-0.1577	-0.0613	-0.0552	0.0016	0.0265	0.0700
18.	2.93	0.0866	-0.0070	-0.0809	-0.1416	-0.1530	-0.0648	-0.0556	-0.0042	0.0181	0.0564
20.	4.58	0.1131	0.0183	-0.0584	-0.1216	-0.1398	-0.0555	-0.0487	0.0125	0.0424	0.0914
22.	3.91	0.0945	0.0082	-0.0549	-0.1329	-0.1478	-0.0632	-0.0559	0.0034	0.0301	0.0761
24.	5.73	0.1343	0.0365	-0.0408	-0.1049	-0.1261	-0.0449	-0.0372	0.0280	0.0619	0.1163
26.	4.89	0.1212	0.0250	-0.0517	-0.1163	-0.1338	-0.0511	-0.0442	0.0183	0.0485	0.1006

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POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
4.	0.04	0.0019	-0.0161	-0.0266	-0.0512	-0.1307	-0.2000	-0.1950	-0.0634
6.	-0.02	0.0004	-0.0177	-0.0291	-0.0535	-0.1325	-0.2011	-0.1677	-0.0591
8.	1.17	0.0256	0.0087	-0.0042	-0.0297	-0.1550	-0.1355	-0.1253	-0.0720
10.	0.97	0.0222	0.0047	-0.0076	-0.0331	-0.1048	-0.1479	-0.1258	-0.0714
12.	2.30	0.0544	0.0044	-0.0264	-0.0013	-0.0443	-0.0892	-0.0986	-0.0543
14.	1.96	0.0430	0.0259	0.0147	-0.0110	-0.0408	-0.1050	-0.1155	-0.0701
16.	3.44	0.0782	0.0630	0.0503	0.0266	-0.0377	-0.0639	-0.0856	-0.0460
18.	2.93	0.0661	0.0498	0.0377	0.0125	-0.0317	-0.0775	-0.0922	-0.0535
20.	4.58	0.1038	0.0892	0.0758	0.0526	-0.0114	-0.0346	-0.0548	-0.0339
22.	3.91	0.0862	0.0715	0.0577	0.0347	-0.0289	-0.0543	-0.0733	-0.0422
24.	5.73	0.1304	0.1169	0.1030	0.0797	0.0147	-0.0120	-0.0346	-0.0182
26.	4.89	0.1129	0.0986	0.0852	0.0624	-0.0030	-0.0293	-0.0495	-0.0265

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
4.	0.04	0.0041	0.0327	0.0163	0.0240	0.0346	-0.0011	-0.0104
6.	-0.02	0.0049	0.0318	0.0153	0.0232	0.0375	-0.0002	-0.0094
8.	1.17	0.0020	0.0312	0.0131	0.0242	0.0371	-0.0008	-0.0098
10.	0.97	0.0027	0.0316	0.0145	0.0244	0.0375	-0.0007	-0.0092
12.	2.30	0.0111	0.0382	0.0175	0.0302	0.0419	0.0019	-0.0045
14.	1.96	0.0035	0.0332	0.0131	0.0245	0.0373	-0.0013	-0.0104
16.	3.44	0.0131	0.0386	0.0155	0.0288	0.0409	0.0029	-0.0004
18.	2.93	0.0099	0.0359	0.0143	0.0264	0.0391	0.0009	-0.0080
20.	4.58	0.0187	0.0416	0.0171	0.0313	0.0400	0.0040	-0.0040
22.	3.91	0.0133	0.0375	0.0137	0.0270	0.0389	0.0002	-0.0087
24.	5.73	0.0244	0.0444	0.0190	0.0353	0.0461	0.0070	-0.0035
26.	4.89	0.0218	0.0439	0.0194	0.0340	0.0451	0.0061	-0.0034

DATE: 3-17-78 PROJECT NO. P41C-403

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M JT P REA10-6 VM Q TT CONFIG SURVEY DATE/ PROPULSION AND TUNNEL  
 TC-532. 431. 0.928 1430.5 819.9 2.975 976.678 494.6 80.4 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CNF	CV	CAF	CLWF	CLN	CLL	CAR
4.	0.04	-0.0421	-0.0009	0.0193	0.0076	-0.0002	0.0016	0.0092
6.	-0.02	-0.0488	-0.0010	0.0192	0.0069	-0.0002	0.0016	0.0090
8.	1.17	0.0676	-0.0012	0.0195	0.0134	-0.0002	0.0016	0.0091
10.	0.97	0.0450	-0.0011	0.0194	0.0121	-0.0002	0.0017	0.0090
12.	2.30	0.1758	-0.0014	0.0188	0.0187	-0.0002	0.0017	0.0086
14.	1.96	0.1452	-0.0011	0.0187	0.0173	-0.0002	0.0016	0.0091
16.	3.44	0.2950	-0.0016	0.0163	0.0227	-0.0002	0.0018	0.0088
18.	2.93	0.2410	-0.0017	0.0172	0.0213	-0.0002	0.0019	0.0089
20.	4.58	0.4227	-0.0020	0.0143	0.0236	-0.0003	0.0019	0.0088
22.	3.91	0.3452	-0.0017	0.0146	0.0250	-0.0002	0.0019	0.0090
24.	5.73	0.5589	-0.0020	0.0130	0.0198	-0.0003	0.0023	0.0086
26.	4.89	0.4659	-0.0022	0.0136	0.0236	-0.0003	0.0021	0.0086



DATE, 3-17-78 PROJECT NO. P41C-V00  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELLION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P RE110-6 VM Q TT CNF16 SURVEY DATE PROPELLION WIND TUNNEL  
 YC-532, 432, 0.924 1443.1 830.7 2.998 973.065 497.0 80.2 22, 50, 2-20-78 TRANSONIC 4Y

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	5.01	0.1268	0.0242	-0.0525	-0.1175	-0.1332	-0.0535	-0.0454	0.0172	0.0483	0.1005
4.	4.00	0.1011	0.0075	-0.0583	-0.1321	-0.1462	-0.0612	-0.0552	0.0043	0.0111	0.0774
6.	3.00	0.0855	-0.0075	-0.0915	-0.1432	-0.1546	-0.0672	-0.0614	-0.0054	0.0171	0.0581
8.	1.99	0.0713	-0.0207	-0.0932	-0.1534	-0.1501	-0.0637	-0.0638	-0.0115	0.0063	0.0409
10.	1.01	0.0587	-0.0311	-0.1014	-0.1587	-0.1515	-0.0631	-0.0630	-0.0142	-0.0007	0.0254
12.	0.01	0.0414	-0.0483	-0.1167	-0.1704	-0.1694	-0.0739	-0.0670	-0.0214	-0.0125	0.0069

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	5.01	0.1127	0.0992	0.0852	0.0624	-0.0034	-0.0217	-0.0493	-0.0271
4.	4.00	0.0885	0.0729	0.0603	0.0371	-0.0264	-0.0517	-0.0721	-0.0415
6.	3.00	0.0650	0.0497	0.0370	0.0129	-0.0312	-0.0779	-0.0927	-0.0552
8.	1.99	0.0433	0.0270	0.0141	-0.0112	-0.0797	-0.1037	-0.1132	-0.0674
10.	1.01	0.0240	0.0071	-0.0052	-0.0319	-0.1054	-0.1428	-0.1735	-0.0697
12.	0.01	-0.0095	-0.0198	-0.0299	-0.0555	-0.1351	-0.2035	-0.1686	-0.0612

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	5.01	0.0212	0.0423	0.0172	0.0320	0.0135	0.0041	-0.0056
4.	4.00	0.0141	0.0379	0.0141	0.0280	0.0101	0.0035	-0.0084
6.	3.00	0.0077	0.0342	0.0119	0.0246	0.0069	-0.0015	-0.0100
8.	1.99	0.0039	0.0329	0.0129	0.0246	0.0069	-0.0012	-0.0102
10.	1.01	0.0039	0.0328	0.0151	0.0256	0.0091	0.0039	-0.0082
12.	0.01	0.0032	0.0311	0.0143	0.0228	0.0061	-0.0032	-0.0115

DATE: 3-17-78 PROJECT NO. PAIC-403

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M PT P HEX10-6 VM Q TT CNFIG SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532, 432, 0.024 1443.1 830.7 2.998 973.065 497.0 80.2 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAP	CLWF	CLN	CLL	CAB
2.	5.01	0.4736	-0.0021	0.0131	0.0239	-0.0003	0.0021	0.0088
4.	4.00	0.3525	-0.0020	0.0146	0.0250	-0.0002	0.0019	0.0059
6.	3.00	0.2778	-0.0016	0.0165	0.0221	-0.0002	0.0015	0.0090
8.	1.99	0.1419	-0.0011	0.0183	0.0177	-0.0002	0.0017	0.0090
10.	1.01	0.0492	-0.0011	0.0196	0.0125	-0.0002	0.0017	0.0088
12.	0.01	-0.0458	-0.0010	0.0187	0.0063	-0.0002	0.0017	0.0091



DATE: 3-17-78 PROJECT NO. P41C-N00

ARO. INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P RE10-5 VM Q TT C34F10 SURVEY 50. DATE: 2-18-78 PROPULSION WIND TUNNEL  
 TC-532. 305. 0.052 1399.9 701.0 3.008 989.157 496.0 70.5 22. TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	0.04	0.0492	-0.0405	-0.1193	-0.1774	-0.2280	-0.0534	-0.0486	-0.0072	0.0029	0.0208
5.	-0.00	0.0512	-0.0385	-0.1173	-0.1745	-0.2257	-0.0522	-0.0449	-0.0042	0.0053	0.0224
7.	1.16	0.0654	-0.0262	-0.1075	-0.1690	-0.2182	-0.0516	-0.0534	-0.0062	0.0093	0.0368
9.	0.48	0.0634	-0.0278	-0.1090	-0.1710	-0.2202	-0.0516	-0.0522	-0.0057	0.0092	0.0349
11.	2.29	0.0844	-0.0092	-0.0921	-0.1583	-0.2075	-0.0535	-0.0473	-0.0024	0.0028	0.0582
13.	1.96	0.0789	-0.0146	-0.0971	-0.1619	-0.2112	-0.0617	-0.0467	0.0004	0.0199	0.0524
15.	3.43	0.1026	-0.0078	-0.0775	-0.1479	-0.1992	-0.0443	-0.0459	0.0108	0.0369	0.0900
17.	2.96	0.0951	0.0002	-0.0835	-0.1527	-0.1998	-0.0532	-0.0461	0.0074	0.0307	0.0710
19.	4.57	0.1219	0.0246	-0.0516	-0.1353	-0.1819	-0.0430	-0.0414	0.0220	0.0526	0.1023
21.	4.01	0.1120	0.0163	-0.0694	-0.1416	-0.1842	-0.0438	-0.0436	0.0159	0.0444	0.0913
23.	5.72	0.1400	0.0417	-0.0451	-0.1206	-0.1635	-0.0403	-0.0351	0.0341	0.0092	0.1261
25.	4.92	0.1280	0.0305	-0.0554	-0.1306	-0.1774	-0.0418	-0.0395	0.0255	0.0580	0.1101

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
3.	0.04	0.0149	0.0000	-0.0097	-0.0272	-0.1048	-0.1796	-0.2474	-0.2312
5.	-0.00	0.0166	0.0012	-0.0076	-0.0256	-0.1001	-0.1753	-0.2462	-0.2323
7.	1.16	0.0370	0.0222	0.0095	-0.0108	-0.0895	-0.1653	-0.2100	-0.1672
9.	0.98	0.0343	0.0195	0.0067	-0.0130	-0.0902	-0.1623	-0.2178	-0.1790
11.	2.29	0.0638	0.0492	0.0350	0.0128	-0.0853	-0.1249	-0.1667	-0.1657
13.	1.96	0.0576	0.0426	0.0277	0.0067	-0.0704	-0.1330	-0.1508	-0.1568
15.	3.43	0.0898	0.0760	0.0601	0.0377	-0.0337	-0.0849	-0.0960	-0.1567
17.	2.96	0.0794	0.0652	0.0497	0.0273	-0.0457	-0.0924	-0.1033	-0.1629
19.	4.57	0.1163	0.1021	0.0863	0.0639	-0.0046	-0.0342	-0.0778	-0.1419
21.	4.01	0.1027	0.0888	0.0730	0.0508	-0.0173	-0.0513	-0.0865	-0.1506
23.	5.72	0.1412	0.1271	0.1097	0.0842	0.0200	-0.0135	-0.0610	-0.1137
25.	4.92	0.1246	0.1105	0.0941	0.0718	0.0036	-0.0395	-0.0725	-0.1353

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
3.	0.04	0.0990	0.0440	0.0333	0.0395	0.0157	0.0004	-0.0161
5.	-0.00	0.0990	0.0466	0.0365	0.0424	0.0188	0.0035	-0.0139
7.	1.16	0.0990	0.0396	0.0241	0.0345	0.0130	-0.0012	-0.0169
9.	0.98	0.0990	0.0405	0.0264	0.0359	0.0134	-0.0003	-0.0184
11.	2.29	0.0990	0.0408	0.0246	0.0366	0.0150	0.0012	-0.0146
13.	1.96	0.0990	0.0392	0.0247	0.0361	0.0141	-0.0000	-0.0150
15.	3.43	0.0990	0.0403	0.0233	0.0381	0.0176	0.0016	-0.0124
17.	2.96	0.0990	0.0413	0.0243	0.0379	0.0170	0.0028	-0.0132
19.	4.57	0.0990	0.0381	0.0214	0.0368	0.0199	0.0054	-0.0092
21.	4.01	0.0990	0.0395	0.0231	0.0390	0.0187	0.0018	-0.0187
23.	5.72	0.0990	0.0341	0.0164	0.0389	0.0212	0.0095	-0.0070
25.	4.92	0.0990	0.0379	0.0204	0.0395	0.0206	0.0078	-0.0076

DATE. 3-17-76 PROJECT NO. 941C-400  
 AEO. INC.  
 AEOC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M 2T P HEALD-A VM 3 IT CONFIG SURVEY DATE PROPUSSION WIND TUNNEL  
 YC-532. 305. 0.952 1399.9 761.0 3.008 989.157 496.0 70.5 22. 50. 2-18-76 TRANSONIC 4T

POINT	ALFA	CNF	CV	CAF	CLMF	CLV	CLU	CAB
3.	0.04	-0.0391	-0.0006	0.0271	0.0068	-0.0001	0.0010	0.0108
5.	-0.00	-0.0443	-0.0007	0.0271	0.0068	-0.0001	0.0010	0.0108
7.	1.16	0.0621	-0.0004	0.0257	0.0108	-0.0001	0.0013	0.0108
9.	0.98	0.0455	-0.0007	0.0255	0.0102	-0.0001	0.0012	0.0108
11.	2.29	0.1743	-0.0011	0.0245	0.0140	-0.0002	0.0013	0.0108
13.	1.96	0.1409	-0.0011	0.0247	0.0135	-0.0002	0.0013	0.0109
15.	3.43	0.2940	-0.0015	0.0229	0.0166	-0.0002	0.0015	0.0106
17.	2.94	0.2621	-0.0013	0.0231	0.0164	-0.0002	0.0014	0.0107
19.	4.57	0.3168	-0.0014	0.0205	0.0162	-0.0002	0.0018	0.0104
21.	4.01	0.3528	-0.0014	0.0213	0.0166	-0.0002	0.0017	0.0106
23.	5.72	0.5446	-0.0014	0.0192	0.0128	-0.0003	0.0016	0.0102
25.	4.92	0.4562	-0.0015	0.0194	0.0159	-0.0003	0.0019	0.0103



DATE, 3-17-78 PROJECT NO. P41C-V03

ARO, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REV10-5 VM Q TT CONFID SURVEY DATE: PROPULSION JIND TUNNEL  
TC-532. 37A. 1.050 1391.6 692.9 2.995 1082.261 534.6 86.1 22. 50. 2-20-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
5.	0.04	0.1409	0.0466	-0.0210	-0.0950	-0.1522	-0.1851	-0.1610	-0.0937	-0.0933	-0.0587
7.	0.05	0.1394	0.0456	-0.0240	-0.0940	-0.1535	-0.1855	-0.1610	-0.0912	-0.0899	-0.0563
9.	0.04	0.1388	0.0447	-0.0240	-0.0949	-0.1542	-0.1855	-0.1608	-0.0920	-0.0913	-0.0578
11.	0.09	0.1405	0.0459	-0.0233	-0.0952	-0.1521	-0.1859	-0.1602	-0.0905	-0.0902	-0.0560
13.	1.19	0.1858	0.0590	-0.0117	-0.0850	-0.1442	-0.1854	-0.1690	-0.0910	-0.0885	-0.0455
15.	0.97	0.1528	0.0566	-0.0140	-0.0873	-0.1455	-0.1855	-0.1684	-0.0911	-0.0888	-0.0479
17.	2.33	0.1743	0.0754	-0.0013	-0.0737	-0.1345	-0.1756	-0.1789	-0.1022	-0.0430	-0.0214
19.	1.95	0.1673	0.0690	-0.0035	-0.0787	-0.1395	-0.1817	-0.1628	-0.0964	-0.0904	-0.0517
21.	3.47	0.1907	0.0495	0.0148	-0.0627	-0.1260	-0.1730	-0.1644	-0.0972	-0.1025	-0.0321
23.	2.93	0.1812	0.0912	0.0064	-0.0711	-0.1343	-0.1766	-0.1599	-0.1123	-0.1172	-0.0597
25.	4.62	0.2091	0.1060	0.0284	-0.0500	-0.1152	-0.1652	-0.1639	-0.0974	-0.1023	-0.0124
27.	3.91	0.1979	0.0959	0.0200	-0.0571	-0.1216	-0.1705	-0.1647	-0.0956	-0.0995	-0.0132
29.	5.77	0.2285	0.1233	0.0438	-0.0358	-0.1035	-0.1579	-0.1609	-0.0989	-0.1075	0.0720
31.	4.89	0.2124	0.1084	0.0307	-0.0478	-0.1136	-0.1651	-0.1649	-0.1013	-0.1032	0.0284

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
5.	0.04	-0.0342	-0.0394	-0.0426	-0.0024	0.0113	-0.0344	-0.1330	-0.1938
7.	0.05	-0.0337	-0.0404	-0.0466	-0.0119	0.0105	-0.0348	-0.1343	-0.1948
9.	0.04	-0.0352	-0.0414	-0.0468	-0.0123	0.0094	-0.0352	-0.1350	-0.1957
11.	0.09	-0.0324	-0.0392	-0.0418	-0.0065	0.0118	-0.0317	-0.1324	-0.1932
13.	1.19	-0.0084	-0.0082	-0.0014	0.0612	0.0228	-0.0312	-0.1192	-0.1734
15.	0.97	-0.0104	-0.0145	-0.0117	0.0506	0.0211	-0.0344	-0.1221	-0.1777
17.	2.33	0.0246	0.0347	0.0637	0.0907	0.0360	-0.0235	-0.1018	-0.1447
19.	1.95	0.0085	0.0129	0.0458	0.0843	0.0311	-0.0319	-0.1104	-0.1560
21.	3.47	0.0664	0.0826	0.1081	0.1117	0.0497	-0.0317	-0.0834	-0.1010
23.	2.93	0.0370	0.0587	0.0924	0.1005	0.0431	-0.0204	-0.0921	-0.1122
25.	4.62	0.1162	0.1282	0.1377	0.1344	0.0562	0.0073	-0.0506	-0.0364
27.	3.91	0.0879	0.1019	0.1187	0.1204	0.0585	-0.0048	-0.0732	-0.0822
29.	5.77	0.1609	0.1691	0.1702	0.1607	0.0927	0.0477	0.0561	0.0010
31.	4.89	0.1259	0.1367	0.1435	0.1384	0.0713	0.0115	-0.0400	-0.0206

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
5.	0.04	-0.1943	-0.2604	-0.1135	0.0137	0.0794	0.0902	0.0807
7.	0.05	-0.1982	-0.2629	-0.1210	0.0303	0.0785	0.0913	0.0812
9.	0.04	-0.1979	-0.2628	-0.1191	0.0303	0.0779	0.0903	0.0806
11.	0.09	-0.1945	-0.2608	-0.1191	0.0309	0.0792	0.0916	0.0820
13.	1.19	-0.1758	-0.2460	-0.1139	0.0211	0.0585	0.0859	0.0801
15.	0.97	-0.1790	-0.2494	-0.1166	0.0234	0.0710	0.0871	0.0807
17.	2.33	-0.1503	-0.2336	-0.0970	0.0107	0.0489	0.0791	0.0765
19.	1.95	-0.1566	-0.2218	-0.0741	0.0195	0.0555	0.0690	0.0735
21.	3.47	-0.1127	-0.1926	-0.0386	0.0120	0.0320	0.0537	0.0430
23.	2.93	-0.1238	-0.1598	-0.0338	0.0128	0.0565	0.0579	0.0615
25.	4.62	-0.0846	-0.1591	-0.0345	-0.0156	0.0417	0.0517	0.0505
27.	3.91	-0.1059	-0.1786	-0.0369	-0.0057	0.0210	0.0598	0.0610
29.	5.77	-0.0829	-0.1443	-0.0414	-0.0201	-0.0083	0.0148	0.0275
31.	4.89	-0.0816	-0.1576	-0.0445	-0.0180	0.0012	0.0360	0.0456

DATE: 3-17-78 PROJECT NO. P41C-400  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P RE410-4 VM Q TT CMFIS SURVEY DATEI PROPUSSION WIND TUNNEL  
 1C-532. 374. 1.050 1301.4 592.9 2.999 1082.261 534.6 80.1 22. 50. 2-20-78 TRANSONIC 47

POINT	ALFA	CMF	CV	CAF	CLMF	CLV	CLU	CLU	CAR
5.	0.04	-0.0423	-0.0006	0.0366	0.0172	0.0001	0.0013	0.0024	0.0024
7.	0.05	-0.0424	-0.0007	0.0369	0.0171	0.0000	0.0013	0.0024	0.0024
9.	0.04	-0.0430	-0.0007	0.0369	0.0176	0.0000	0.0013	0.0025	0.0025
11.	0.09	-0.0374	-0.0006	0.0371	0.0173	0.0000	0.0014	0.0024	0.0024
13.	1.19	0.0747	-0.0011	0.0373	0.0128	-0.0000	0.0015	0.0019	0.0019
15.	0.97	0.0515	-0.0010	0.0372	0.0137	-0.0000	0.0015	0.0020	0.0020
17.	2.33	0.1940	-0.0013	0.0367	0.0080	-0.0000	0.0014	0.0016	0.0016
19.	1.95	0.1532	-0.0011	0.0367	0.0047	0.0000	0.0014	0.0014	0.0014
21.	3.47	0.3164	-0.0012	0.0349	0.0029	-0.0000	0.0021	0.0015	0.0015
23.	2.93	0.2597	-0.0013	0.0351	0.0052	-0.0000	0.0021	0.0017	0.0017
25.	4.62	0.4418	-0.0013	0.0334	-0.0055	-0.0000	0.0014	0.0016	0.0016
27.	3.91	0.3622	-0.0015	0.0345	0.0001	-0.0001	0.0020	0.0017	0.0017
29.	5.77	0.5755	-0.0018	0.0321	-0.0177	-0.0000	0.0015	0.0021	0.0021
31.	4.89	0.4722	-0.0014	0.0330	-0.0077	-0.0000	0.0019	0.0020	0.0020



DATE, 3-17-78 PROJECT NO. PAIC-400

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P RE410-6 VM Q TT CNF10 SURVEY DATE: PROPULSION WIND TUNNEL  
TC-532, 375, 1.050 1395.6 694.5 3.000 1003.784 535.4 81.1 22, 2-20-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	-0.01	0.1373	0.0437	-0.0255	-0.0978	-0.1536	-0.1857	-0.1599	-0.0928	-0.0925	-0.0590
4.	0.01	0.1391	0.0450	-0.0244	-0.0966	-0.1537	-0.1854	-0.1610	-0.0910	-0.0897	-0.0559
6.	0.99	0.1526	0.0565	-0.0144	-0.0876	-0.1453	-0.1854	-0.1683	-0.0916	-0.0897	-0.0485
8.	1.99	0.1669	0.0690	-0.0237	-0.0784	-0.1385	-0.1827	-0.1727	-0.0955	-0.0899	-0.0368
10.	3.00	0.1848	0.0842	-0.0101	-0.0661	-0.1277	-0.1747	-0.1737	-0.1024	-0.0871	-0.0150
12.	4.00	0.1986	0.0963	0.0208	-0.0572	-0.1221	-0.1639	-0.1619	-0.1016	-0.1076	-0.0275
14.	5.00	0.2149	0.1111	0.0327	-0.0460	-0.1120	-0.1622	-0.1642	-0.0986	-0.1043	0.0309

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	-0.01	-0.0374	-0.0441	-0.0491	-0.0161	0.0100	-0.0546	-0.1358	-0.1968
4.	0.01	-0.0343	-0.0417	-0.0479	-0.0147	0.0126	-0.0551	-0.1350	-0.1959
6.	0.99	-0.0113	-0.0148	-0.0111	0.0520	0.0178	-0.0446	-0.1223	-0.1774
8.	1.99	0.0181	0.0174	0.0427	0.0828	0.0240	-0.0307	-0.1691	-0.1553
10.	3.00	0.0580	0.0639	0.0324	0.1049	0.0544	-0.0150	-0.0901	-0.1231
12.	4.00	0.0878	0.1046	0.1212	0.1219	0.0584	-0.0035	-0.0684	-0.0889
14.	5.00	0.1306	0.1416	0.1493	0.1418	0.0730	0.0156	-0.0320	-0.0094

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	-0.01	-0.1986	-0.2641	-0.1183	0.0310	0.0789	0.0899	0.0803
4.	0.01	-0.1972	-0.2638	-0.1240	0.0307	0.0784	0.0955	0.0812
6.	0.99	-0.1797	-0.2493	-0.1158	0.0230	0.0597	0.0859	0.0794
8.	1.99	-0.1594	-0.2351	-0.0981	0.0131	0.0575	0.0798	0.0754
10.	3.00	-0.1354	-0.2117	-0.0857	0.0047	0.0342	0.0736	0.0716
12.	4.00	-0.1014	-0.1652	-0.0372	-0.0057	0.0262	0.0572	0.0572
14.	5.00	-0.0820	-0.1543	-0.0424	-0.0174	0.0001	0.0320	0.0437

DATE. 3-17-78 PROJECT NO. PAIC-000  
 ARO. INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELUSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M OF P REAID-6 VM 2 IT CONFIG SURVEY DATE PROPELUSION WIND TUNNEL  
 TC-532. 375. 1.050 1305.6 594.5 3.000 1083.784 535.4 91.1 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CNF	CV	CAP	CLWF	CLV	CLL	CAB
2.	-0.01	-0.0509	-0.0007	0.0368	0.0177	0.0001	0.0013	0.0026
4.	0.01	-0.0572	-0.0007	0.0370	0.0177	0.0001	0.0013	0.0025
6.	0.09	0.0549	-0.0010	0.0373	0.0136	-0.0000	0.0015	0.0020
8.	1.09	0.1575	-0.0011	0.0369	0.0094	-0.0000	0.0019	0.0018
10.	3.00	0.2664	-0.0012	0.0361	0.0052	-0.0001	0.0019	0.0015
12.	5.00	0.3713	-0.0014	0.0345	-0.0007	0.0000	0.0020	0.0016
14.	5.00	0.4859	-0.0017	0.0327	-0.0004	0.0000	0.0017	0.0020



DATE. 3-17-78 PROJECT NO. P41C-400

ARD, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
PROPULSION WIND TUNNEL  
ARVOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P PERIOD-5 VM D TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 429. 1.103 1395.8 561.3 3.003 1131.005 554.7 84.4 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	0.06	0.1624	0.0663	0.0054	-0.0653	-0.1237	-0.1547	-0.1544	-0.1135	-0.0464	-0.0444
5.	0.06	0.1621	0.0681	0.0075	-0.0675	-0.1217	-0.1540	-0.1522	-0.1122	-0.0444	-0.0424
7.	-0.02	0.1621	0.0657	0.0045	-0.0654	-0.1243	-0.1559	-0.1546	-0.1136	-0.0470	-0.0464
9.	1.19	0.1777	0.0429	0.0152	-0.0561	-0.1163	-0.1530	-0.1572	-0.1124	-0.0557	-0.0724
11.	0.98	0.1734	0.0400	0.0130	-0.0579	-0.1170	-0.1520	-0.1576	-0.1121	-0.0491	-0.0751
13.	2.33	0.1921	0.0968	0.0296	-0.0447	-0.1072	-0.1454	-0.1567	-0.1144	-0.0915	-0.0524
15.	1.96	0.1884	0.0929	0.0258	-0.0477	-0.1085	-0.1454	-0.1558	-0.1124	-0.0800	-0.0574
17.	3.44	0.2089	0.1129	0.0433	-0.0375	-0.0976	-0.1400	-0.1542	-0.1129	-0.1071	-0.0364
19.	2.93	0.2013	0.1065	0.0365	-0.0376	-0.1012	-0.1413	-0.1549	-0.1119	-0.1023	-0.0452
21.	4.61	0.2274	0.1301	0.0565	-0.0211	-0.0961	-0.1314	-0.1533	-0.1112	-0.1155	-0.0222
23.	3.92	0.2157	0.1199	0.0478	-0.0269	-0.0936	-0.1354	-0.1530	-0.1129	-0.1122	-0.0340
25.	5.76	0.2450	0.1472	0.0703	-0.0076	-0.0756	-0.1240	-0.1500	-0.1104	-0.1155	0.0130
27.	4.84	0.2313	0.1329	0.0516	-0.0168	-0.0425	-0.1321	-0.1496	-0.1087	-0.1127	-0.0081

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	0.06	-0.0150	0.0185	0.0201	0.0522	0.0910	0.0131	-0.0824	-0.1277
5.	0.06	-0.0121	0.0214	0.0226	0.0536	0.0931	0.0283	-0.0808	-0.1257
7.	-0.02	-0.0138	0.0175	0.0184	0.0469	0.0909	0.0147	-0.0840	-0.1284
9.	1.19	-0.0080	0.0341	0.0650	0.1355	0.0965	0.0244	-0.0680	-0.1044
11.	0.94	-0.0057	0.0480	0.0551	0.1220	0.0954	0.0247	-0.0709	-0.1079
13.	2.33	-0.0125	0.0968	0.1289	0.1441	0.1068	0.0340	-0.0504	-0.0781
15.	1.96	-0.0172	0.0816	0.1079	0.1582	0.1043	0.0359	-0.0554	-0.0863
17.	3.44	0.0361	0.1484	0.1712	0.1922	0.1201	0.0516	-0.0298	-0.0420
19.	2.93	0.0124	0.1232	0.1538	0.1730	0.1128	0.0447	-0.0401	-0.0606
21.	4.61	0.1334	0.1884	0.2002	0.2010	0.1134	0.0734	-0.0043	0.0006
23.	3.92	0.0758	0.1647	0.1931	0.1993	0.1263	0.0528	-0.0209	-0.0273
25.	5.76	0.1915	0.2233	0.2273	0.2213	0.1483	0.0493	0.0449	0.0468
27.	4.84	0.1194	0.1969	0.2082	0.2077	0.1404	0.0755	0.0041	0.0181

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	0.06	-0.1239	-0.1865	-0.2218	-0.0729	-0.0705	0.0034	-0.0311
5.	0.06	-0.1217	-0.1863	-0.2227	-0.0716	-0.0689	0.0031	-0.0311
7.	-0.02	-0.1252	-0.1893	-0.2270	-0.0749	-0.0703	0.0030	-0.0268
9.	1.19	-0.1085	-0.1627	-0.2155	-0.0689	-0.0729	0.0129	-0.0412
11.	0.98	-0.1115	-0.1839	-0.2184	-0.0697	-0.0739	0.0112	-0.0386
13.	2.33	-0.0819	-0.1637	-0.1766	-0.0539	-0.0722	0.0111	-0.0542
15.	1.96	-0.0892	-0.1840	-0.1875	-0.0563	-0.0771	0.0144	-0.0513
17.	3.44	-0.0557	-0.1473	-0.1371	-0.0464	-0.0756	0.0047	-0.0541
19.	2.93	-0.0690	-0.1554	-0.1582	-0.0505	-0.0766	0.0132	-0.0528
21.	4.61	-0.0402	-0.1351	-0.1016	-0.0457	-0.0719	0.0036	-0.0526
23.	3.92	-0.0501	-0.1435	-0.1255	-0.0468	-0.0715	0.0035	-0.0526
25.	5.76	-0.0277	-0.1216	-0.0699	-0.0421	-0.0759	-0.0016	-0.0538
27.	4.84	-0.0254	-0.1203	-0.0792	-0.0355	-0.0739	-0.0274	-0.0510

DATE. 3-17-78 PROJECT NO. PAIC-400

ARO, INC.

AERC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P REA10-6 VM Q TT CNF10 SURVEY DATE: PROPULSION WIND TUNNEL  
TC-532. 429. 1.103 1395.8 451.3 3.003 1131.005 554.7 84.4 22. 50. 2-20-78 TRANSONIC 47

POINT	ALFA	CNF	CY	CAF	CLW	CLV	CLU	CAR
2.	0.06	-0.0320	-0.0009	0.0381	0.0163	-0.0003	0.0015	0.0131
5.	0.06	-0.0317	-0.0007	0.0385	0.0156	-0.0002	0.0015	0.0128
7.	-0.02	-0.0411	-0.0009	0.0344	0.0166	-0.0002	0.0015	0.0131
9.	1.19	0.0799	-0.0007	0.0385	0.0110	-0.0003	0.0014	0.0124
11.	0.98	0.0573	-0.0006	0.0385	0.0116	-0.0003	0.0014	0.0125
13.	2.33	0.1933	-0.0007	0.0381	0.0062	-0.0005	0.0016	0.0124
15.	1.96	0.1554	-0.0008	0.0383	0.0077	-0.0004	0.0015	0.0124
17.	3.48	0.3111	-0.0011	0.0369	0.0003	-0.0006	0.0014	0.0122
19.	2.93	0.2541	-0.0009	0.0376	0.0029	-0.0005	0.0015	0.0121
21.	4.61	0.4284	-0.0016	0.0364	-0.0007	-0.0006	0.0013	0.0119
23.	3.92	0.3545	-0.0011	0.0370	-0.0028	-0.0006	0.0013	0.0120
25.	5.76	0.5494	-0.0019	0.0358	-0.0203	-0.0004	0.0011	0.0120
27.	4.88	0.4565	-0.0017	0.0360	-0.0109	-0.0005	0.0011	0.0125



DATE, 3-17-78 PROJECT NO. P41C-400  
 ARO, INC.  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PRODUCTION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REAL10-5 VM Q TT CMF10 SURVEY DATE: PROPULSION WIND TUNNEL  
 TC-532. 430. 1.099 1380.4 647.2 2.998 1123.486 547.3 80.2 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	5.00	0.2328	0.1356	0.0621	-0.0170	-0.0842	-0.1234	-0.1504	-0.1118	-0.1133	-0.0150
4.	3.99	0.2165	0.1195	0.0491	-0.0278	-0.0333	-0.1370	-0.1533	-0.1130	-0.1104	-0.0287
6.	2.99	0.2032	0.1057	0.0375	-0.0374	-0.1016	-0.1421	-0.1552	-0.1132	-0.1039	-0.0412
8.	2.00	0.1884	0.0919	0.0240	-0.0484	-0.1099	-0.1470	-0.1565	-0.1146	-0.0443	-0.0557
10.	0.99	0.1752	0.0819	0.0141	-0.0570	-0.1164	-0.1512	-0.1572	-0.1110	-0.0501	-0.0748
12.	-0.00	0.1630	0.0683	0.0009	-0.0668	-0.1242	-0.1542	-0.1549	-0.1104	-0.0539	-0.0907

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	5.00	0.1515	0.2008	0.2094	0.2077	0.1390	0.0749	0.0073	0.0194
4.	3.99	0.0669	0.1675	0.1841	0.1965	0.1271	0.0620	-0.0194	-0.0239
6.	2.99	0.0073	0.1270	0.1587	0.1752	0.1141	0.0445	-0.0381	-0.0571
8.	2.00	-0.0201	0.0828	0.1092	0.1581	0.1043	0.0355	-0.0558	-0.0667
10.	0.99	-0.0104	0.0490	0.0566	0.1237	0.0974	0.0257	-0.0498	-0.1073
12.	-0.00	0.0849	0.0192	0.0188	0.0470	0.0599	0.0175	-0.0839	-0.1251

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	5.00	-0.0311	-0.1264	-0.0962	-0.0429	-0.0749	-0.0121	-0.0515
4.	3.99	-0.0444	-0.1398	-0.1105	-0.0447	-0.0743	0.0003	-0.0537
6.	2.99	-0.0655	-0.1530	-0.1521	-0.0476	-0.0781	0.0144	-0.0538
8.	2.00	-0.0889	-0.1676	-0.1849	-0.0555	-0.0783	0.0156	-0.0526
10.	0.99	-0.1111	-0.1839	-0.2173	-0.0700	-0.0735	0.0124	-0.0375
12.	-0.00	-0.1316	-0.1993	-0.2426	-0.0834	-0.0638	0.0055	-0.0139

DATE. 3-17-78 PROJECT NO. PAIC-400  
 ARO, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P REX10-6 VM Q TT CNFIS SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 430. 1.099 1380.6 647.2 2.998 1123.486 547.3 86.2 22. 50. 2-20-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLLI	CAH
2.	5.00	0.4695	-0.0016	0.0360	-0.0122	-0.0006	0.0012	0.0122
4.	3.99	0.7620	-0.0012	0.0367	-0.0033	-0.0006	0.0013	0.0122
6.	2.99	0.2605	-0.0009	0.0377	0.0028	-0.0005	0.0015	0.0122
8.	2.00	0.1599	-0.0010	0.0383	0.0071	-0.0004	0.0015	0.0125
10.	0.99	0.0588	-0.0008	0.0386	0.0116	-0.0003	0.0018	0.0125
12.	-0.00	-0.0403	-0.0006	0.0386	0.0160	-0.0002	0.0017	0.0126



DATE: 3-28-78 PROJECT NO. PAIC-400  
 ARO, INC.  
 AERO DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST 449. 0.024 1444.2 831.6 2.994 973.438 497.2 81.1 24. 50. 3-21-78 DATE PROPULSION WIND TUNNEL  
 TC-532.

POINT	ALFA	CP51	CP52	CP53	CP54	CP55	CP56	CP57	CP58	CP59	CP60
4.	0.04	0.0403	-0.0419	-0.1133	-0.1670	-0.1620	-0.0408	-0.0524	-0.0025	-0.0144	0.0401
6.	0.00	0.0384	-0.0431	-0.1148	-0.1674	-0.1628	-0.0410	-0.0431	-0.0027	0.0140	0.0301
8.	1.17	0.0561	-0.0291	-0.1021	-0.1594	-0.1600	-0.0504	-0.0524	0.0015	0.0232	0.0563
10.	0.04	0.0534	-0.0311	-0.1040	-0.1606	-0.1606	-0.0502	-0.0524	0.0007	0.0222	0.0539
12.	2.30	0.0709	-0.0169	-0.0922	-0.1524	-0.1582	-0.0505	-0.0517	0.0044	0.0314	0.0717
14.	1.94	0.0679	-0.0182	-0.0929	-0.1504	-0.1551	-0.0500	-0.0523	0.0041	0.0280	0.0667
16.	3.44	0.0941	-0.0056	-0.0716	-0.1337	-0.1429	-0.0480	-0.0424	0.0190	0.0500	0.0963
18.	7.05	0.0860	-0.0022	-0.0775	-0.1381	-0.1453	-0.0520	-0.0476	0.0130	0.0423	0.0854
20.	4.59	0.1129	0.0224	-0.0570	-0.1208	-0.1330	-0.0408	-0.0356	0.0304	0.0650	0.1174
22.	7.91	0.1001	0.0104	-0.0668	-0.1280	-0.1391	-0.0470	-0.0424	0.0213	0.0538	0.1013
24.	5.73	0.1330	0.0408	-0.0306	-0.1049	-0.1201	-0.0310	-0.0242	0.0448	0.0440	0.1404
26.	4.00	0.1171	0.0267	-0.0524	-0.1157	-0.1241	-0.0304	-0.0318	0.0323	0.0645	0.1211

POINT	ALFA	CP511	CP512	CP513	CP514	CP515	CP516	CP517	CP518
4.	0.04	0.0351	-0.0053	-0.0594	-0.0870	-0.1513	-0.224	-0.2009	-0.1023
6.	0.00	0.0343	-0.0067	-0.0618	-0.0891	-0.1524	-0.2251	-0.2028	-0.1052
8.	1.17	0.0549	0.0212	-0.0581	-0.0578	-0.1312	-0.1995	-0.2104	-0.1047
10.	0.04	0.0524	0.0164	-0.0505	-0.0626	-0.1327	-0.2040	-0.2471	-0.1002
12.	2.30	0.0741	0.0442	0.0026	-0.0329	-0.1026	-0.1504	-0.1432	-0.1260
14.	1.94	0.0693	0.0371	-0.0053	-0.0403	-0.1143	-0.1483	-0.1434	-0.1114
16.	3.44	0.1053	0.0763	0.0304	0.0029	-0.0674	-0.0975	-0.1199	-0.1061
18.	7.05	0.0922	0.0636	0.0248	-0.0113	-0.0793	-0.1100	-0.1256	-0.0908
20.	4.59	0.1244	0.1026	0.0572	0.0328	-0.0354	-0.0648	-0.0862	-0.0828
22.	7.91	0.1114	0.0837	0.0474	0.0122	-0.0458	-0.0855	-0.1004	-0.0883
24.	5.73	0.1542	0.1304	0.0944	0.0624	-0.0056	-0.0400	-0.0759	-0.0727
26.	4.00	0.1332	0.1087	0.0735	0.0389	-0.0282	-0.0506	-0.0841	-0.0732

POINT	ALFA	CP519	CP520	CP521	CP522	CP523	CP524	CP525
4.	0.04	-0.0184	0.0156	0.0142	0.0357	0.0220	0.0071	-0.0079
6.	0.00	-0.0184	0.0152	0.0140	0.0353	0.0214	0.0073	-0.0081
8.	1.17	-0.0259	0.0118	0.0104	0.0342	0.0212	0.0070	-0.0077
10.	0.04	-0.0244	0.0126	0.0112	0.0348	0.0212	0.0074	-0.0079
12.	2.30	-0.0301	0.0099	0.0056	0.0324	0.0184	0.0044	-0.0107
14.	1.94	-0.0272	0.0102	0.0072	0.0329	0.0198	0.0042	-0.0089
16.	3.44	-0.0208	0.0152	0.0104	0.0376	0.0244	0.0100	-0.0052
18.	7.05	-0.0223	0.0128	0.0074	0.0343	0.0210	0.0072	-0.0069
20.	4.59	-0.0144	0.0179	0.0108	0.0394	0.0258	0.0114	-0.0038
22.	7.91	-0.0179	0.0144	0.0082	0.0361	0.0227	0.0086	-0.0060
24.	5.73	-0.0144	0.0156	0.0080	0.0396	0.0272	0.0142	-0.0006
26.	4.00	-0.0126	0.0176	0.0096	0.0385	0.0249	0.0108	-0.0040

DATE: 3-26-78 PROJECT NO. P41C-N00  
 ARO, INC.  
 AFPC DIVISION  
 A SYRACUSE CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REHIO-6 VM Q TT CONFIG SURVEY DATE PROPUSSION WIND TUNNEL  
 TC-532. 549. 0.024 1444.2 831.6 2.004 973.638 497.2 81.1 24. 50. 2-21-78 TRANSONIC 47

POINT	ALFA	CNF	CV	CAF	CLMF	CLW	CLL	CAR
4.	0.04	-0.0494	-0.0009	0.0244	0.0175	-0.0001	0.0017	0.0095
6.	0.00	-0.0544	-0.0010	0.0249	0.0174	-0.0001	0.0014	0.0094
8.	1.17	0.0570	-0.0009	0.0249	0.0227	-0.0001	0.0014	0.0095
10.	0.94	0.0363	-0.0008	0.0249	0.0216	-0.0001	0.0014	0.0095
12.	2.30	0.1700	-0.0013	0.0235	0.0270	-0.0002	0.0014	0.0094
14.	1.96	0.1318	-0.0011	0.0236	0.0268	-0.0002	0.0015	0.0094
16.	3.44	0.2942	-0.0017	0.0222	0.0337	-0.0002	0.0019	0.0093
18.	3.05	0.2477	-0.0015	0.0222	0.0330	-0.0002	0.0014	0.0094
20.	4.59	0.4234	-0.0014	0.0203	0.0336	-0.0003	0.0023	0.0093
22.	3.91	0.3387	-0.0016	0.0204	0.0364	-0.0003	0.0019	0.0094
24.	5.73	0.6429	-0.0017	0.0217	0.0301	0.0001	0.0069	0.0091
26.	4.00	0.4562	-0.0018	0.0194	0.0355	-0.0002	0.0037	0.0092



DATE 3-20-78 PROJECT NO. P41C-400  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M PT P REF10-A VM Q TT CONF16 SURVEY 50. DATE 2-21-78 PROPUSSION WIND TUNNEL  
 TC-532. 450. 0.024 1451.6 836.4 2.997 974.517 490.4 82.7 24.

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2	5.00	0.1194	0.0285	-0.0402	-0.1137	-0.1275	-0.0392	-0.0328	0.0341	0.0705	0.1234
4	4.00	0.1024	0.0124	-0.0651	-0.1273	-0.1342	-0.0457	-0.0403	0.0230	0.0554	0.1044
6	3.01	0.0854	-0.0026	-0.0788	-0.1401	-0.1479	-0.0524	-0.0474	0.0130	0.0424	0.0862
8	2.00	0.0604	-0.0171	-0.0914	-0.1504	-0.1544	-0.0571	-0.0509	0.0054	0.0313	0.0440
10	1.01	0.0544	-0.0292	-0.1019	-0.1542	-0.1544	-0.0549	-0.0523	0.0007	0.0220	0.0534
12	0.00	0.0370	-0.0436	-0.1140	-0.1645	-0.1623	-0.0619	-0.0540	-0.0041	0.0124	0.0374

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2	5.00	0.1344	0.1114	0.0749	0.0427	-0.0254	-0.0544	-0.0447	-0.0729
4	4.00	0.1144	0.0874	0.0504	0.0154	-0.0529	-0.0431	-0.1043	-0.0807
6	3.01	0.0930	0.0670	0.0244	-0.0114	-0.0824	-0.1130	-0.1284	-0.1046
8	2.00	0.0714	0.0390	-0.0024	-0.0377	-0.1124	-0.1444	-0.1420	-0.1145
10	1.01	0.0524	-0.0144	-0.0294	-0.0624	-0.1340	-0.2042	-0.2241	-0.0929
12	0.00	0.0321	-0.0041	-0.0423	-0.0494	-0.1542	-0.2271	-0.2444	-0.0963

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2	5.00	-0.0174	0.0180	0.0104	0.0301	0.0253	0.0116	-0.0076
4	4.00	-0.0173	0.0154	0.0094	0.0174	0.0214	0.0094	-0.0053
6	3.01	-0.0234	0.0124	0.0084	0.0144	0.0212	0.0074	-0.0072
8	2.00	-0.0267	0.0104	0.0084	0.0141	0.0204	0.0074	-0.0060
10	1.01	-0.0244	0.0114	0.0102	0.0143	0.0212	0.0074	-0.0059
12	0.00	-0.0204	0.0134	0.0120	0.0137	0.0204	0.0059	-0.0091

DATE 3-20-78 PROJECT NO. P41C-N00

ARM, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARMOLD AIR FORCE STATION, TENNESSEE

TEST POINT W DT D REF10-6 VM O TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532 550. 0.024 1451.6 536.4 2.007 974.517 499.4 82.7 24. 50. 2-21-78 TRANSONIC 4T

POINT	ALFA	CNF	CY	CAF	CLMF	FLM	CLL	CAR
2.	5.00	0.4663	-0.0018	0.0194	0.0353	-0.0001	0.0034	0.0093
4.	4.00	0.3514	-0.0019	0.0203	0.0360	-0.0002	0.0020	0.0093
6.	3.01	0.2452	-0.0019	0.0221	0.0324	-0.0001	0.0017	0.0095
8.	2.00	0.1304	-0.0016	0.0239	0.0272	-0.0001	0.0015	0.0095
10.	1.01	0.0402	-0.0011	0.0245	0.0220	-0.0001	0.0015	0.0094
12.	0.00	-0.0541	-0.0010	0.0247	0.0173	-0.0001	0.0018	0.0095



DATE. 3-17-78 PROJECT NO. P41C-403

ARO, INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P HEALIA-6 VM Q IT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 475. 0.950 1437.8 806.2 3.007 997.172 504.3 81.4 24. 50. 2-21-78 TRANSONIC 4T

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	0.05	0.0504	-0.0352	-0.1147	-0.1743	-0.2181	-0.0438	-0.0362	0.0146	0.0345	0.0634
5.	0.11	0.0502	-0.0343	-0.1156	-0.1746	-0.2193	-0.0443	-0.0370	0.0138	0.0343	0.0635
7.	-0.01	0.0486	-0.0363	-0.1175	-0.1769	-0.2212	-0.0452	-0.0381	0.0127	0.0329	0.0616
9.	1.18	0.0663	-0.0195	-0.1035	-0.1634	-0.2136	-0.0349	-0.0353	0.0179	0.0425	0.0787
11.	0.98	0.0641	-0.0216	-0.1044	-0.1645	-0.2140	-0.0338	-0.0351	0.0174	0.0414	0.0763
13.	2.31	0.0853	-0.0076	-0.0880	-0.1526	-0.1948	-0.0375	-0.0331	0.0242	0.0534	0.0964
15.	1.97	0.0791	-0.0085	-0.0929	-0.1556	-0.2032	-0.0349	-0.0348	0.0211	0.0495	0.0907
17.	3.48	0.1030	0.0119	-0.0728	-0.1424	-0.1932	-0.0379	-0.0304	0.0326	0.0642	0.1151
19.	2.91	0.0933	0.0031	-0.0817	-0.1482	-0.1903	-0.0380	-0.0338	0.0274	0.0590	0.1050
21.	4.61	0.1212	0.0279	-0.0577	-0.1299	-0.1754	-0.0370	-0.0291	0.0429	0.0810	0.1356
23.	3.91	0.1099	0.0179	-0.0575	-0.1346	-0.1831	-0.0383	-0.0289	0.0364	0.0715	0.1226
25.	5.76	0.1416	0.0443	-0.0396	-0.1138	-0.1575	-0.0291	-0.0146	0.0570	0.0987	0.1564
27.	4.89	0.1266	0.0323	-0.0532	-0.1264	-0.1708	-0.0351	-0.0226	0.0467	0.0857	0.1408

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
3.	0.05	0.0604	0.0193	-0.0499	-0.0723	-0.1160	-0.1892	-0.2695	-0.2880
5.	0.11	0.0610	0.0187	-0.0492	-0.0706	-0.1164	-0.1891	-0.2689	-0.2867
7.	-0.01	0.0585	0.0160	-0.0542	-0.0772	-0.1179	-0.1917	-0.2721	-0.2914
9.	1.18	0.0802	0.0414	-0.0091	-0.0347	-0.1017	-0.1707	-0.2474	-0.2424
11.	0.98	0.0769	0.0379	-0.0151	-0.0400	-0.1024	-0.1743	-0.2516	-0.2512
13.	2.31	0.1017	0.0681	0.0248	-0.0067	-0.0809	-0.1448	-0.2095	-0.1686
15.	1.97	0.0940	0.0590	0.0142	-0.0161	-0.0844	-0.1570	-0.2250	-0.1807
17.	3.48	0.1243	0.0937	0.0541	0.0191	-0.0376	-0.1155	-0.1638	-0.1664
19.	2.91	0.1124	0.0800	0.0391	0.0044	-0.0704	-0.1355	-0.1766	-0.1577
21.	4.61	0.1472	0.1196	0.0829	0.0470	-0.0258	-0.0610	-0.0934	-0.1576
23.	3.91	0.1325	0.1027	0.0549	0.0290	-0.0451	-0.0903	-0.1034	-0.1642
25.	5.76	0.1710	0.1451	0.1118	0.0765	-0.0070	-0.0314	-0.0741	-0.1442
27.	4.89	0.1539	0.1266	0.0905	0.0551	-0.0172	-0.0526	-0.0886	-0.1547

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
3.	0.05	-0.1349	0.0297	0.0412	0.0593	0.0415	0.0231	0.0024
5.	0.11	-0.1390	0.0280	0.0402	0.0584	0.0409	0.0223	0.0013
7.	-0.01	-0.1435	0.0278	0.0404	0.0549	0.0406	0.0219	0.0009
9.	1.18	-0.1274	0.0260	0.0350	0.0561	0.0401	0.0219	0.0015
11.	0.98	-0.1245	0.0281	0.0356	0.0573	0.0403	0.0223	0.0015
13.	2.31	-0.1171	0.0242	0.0303	0.0548	0.0395	0.0221	0.0031
15.	1.97	-0.1109	0.0242	0.0301	0.0543	0.0397	0.0215	0.0023
17.	3.48	-0.1487	0.0228	0.0273	0.0546	0.0402	0.0222	0.0035
19.	2.91	-0.1308	0.0227	0.0274	0.0541	0.0395	0.0206	0.0025
21.	4.61	-0.1354	0.0204	0.0226	0.0544	0.0413	0.0239	0.0062
23.	3.91	-0.1451	0.0222	0.0257	0.0551	0.0401	0.0233	0.0044
25.	5.76	-0.0926	0.0156	0.0163	0.0530	0.0422	0.0272	0.0095
27.	4.89	-0.1282	0.0191	0.0218	0.0547	0.0415	0.0251	0.0076

DATE: 3-17-78 PROJECT NO. P41C-400  
 ARO, INC.  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPUSSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	M	ST	P	REX10-6	VM	Q	FT	CSF1G	SURVEY	DATE	PROPULSION WIND TUNNEL
TC-532	475	0.050	1437.5	864.2	3.007	997.172	508.3	81.4	24.	50.	2-21-78	TRANSONIC 4T
POINT	ALFA	CMP	CY	CAF	CLMF	CLW	CLU	CLV	CLW	CLU	CLV	CLW
3.	0.05	-0.0343	-0.0009	0.0319	0.0149	-0.0001	0.0014	0.0096				
5.	0.11	-0.0312	-0.0011	0.0317	0.0150	-0.0002	0.0014	0.0097				
7.	-0.01	-0.0434	-0.0012	0.0317	0.0147	-0.0002	0.0014	0.0098				
9.	1.18	0.0688	-0.0012	0.0314	0.0280	-0.0002	0.0014	0.0098				
11.	0.96	0.0498	-0.0012	0.0312	0.0190	-0.0002	0.0014	0.0097				
13.	2.31	0.1833	-0.0015	0.0293	0.0227	-0.0002	0.0014	0.0098				
15.	1.97	0.1472	-0.0014	0.0297	0.0219	-0.0002	0.0014	0.0098				
17.	3.28	0.3141	-0.0017	0.0278	0.0223	-0.0003	0.0017	0.0097				
19.	2.91	0.2490	-0.0016	0.0278	0.0231	-0.0002	0.0017	0.0098				
21.	4.41	0.4391	-0.0017	0.0267	0.0204	-0.0003	0.0017	0.0095				
23.	3.91	0.3601	-0.0018	0.0271	0.0224	-0.0003	0.0017	0.0096				
25.	5.76	0.5636	-0.0015	0.0270	0.0162	-0.0004	0.0022	0.0094				
27.	4.89	0.4721	-0.0017	0.0265	0.0188	-0.0003	0.0017	0.0094				



DATE: 3-17-78 PROJECT NO. PAIC-400  
 ARD, INC.  
 AEDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M ST P RE10-5 V4 Q TT CNF16 SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532, 477, 0.049 1454.5 814.7 3.000 1001.111 513.5 87.0 24. 50. 2-21-76 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	5.01	0.1287	0.0335	-0.0519	-0.1256	-0.1593	-0.0311	-0.0220	0.0473	0.0070	0.1422
4.	4.05	0.1116	0.0183	-0.0581	-0.1370	-0.1823	-0.0335	-0.0265	0.0370	0.0730	0.1243
6.	2.76	0.0915	0.0018	-0.0819	-0.1481	-0.1901	-0.0336	-0.0342	0.0268	0.0477	0.1025
8.	2.00	0.0795	-0.0087	-0.0926	-0.1548	-0.2010	-0.0410	-0.0363	0.0216	0.0499	0.0905
10.	2.12	0.0816	-0.0072	-0.0912	-0.1541	-0.1938	-0.0421	-0.0367	0.0216	0.0501	0.0919
12.	1.00	0.0629	-0.0234	-0.1050	-0.1645	-0.2100	-0.0471	-0.0397	0.0146	0.0391	0.0740
14.	0.00	0.0486	-0.0257	-0.1160	-0.1719	-0.2135	-0.0515	-0.0404	0.0117	0.0319	0.0593
16.	3.02	0.0957	0.0053	-0.0791	-0.1467	-0.1893	-0.0373	-0.0315	0.0293	0.0511	0.1077
18.	2.00	0.0796	-0.0090	-0.0933	-0.1556	-0.2045	-0.0365	-0.0343	0.0227	0.0504	0.0912

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	5.01	0.1550	0.1279	0.0929	0.0572	-0.0133	-0.0506	-0.0473	-0.1539
4.	4.05	0.1360	0.1054	0.0676	0.0315	-0.0439	-0.0448	-0.1829	-0.1634
6.	2.76	0.1097	0.0767	0.0397	0.0020	-0.0726	-0.1394	-0.1796	-0.1592
8.	2.00	0.0944	0.0596	0.0154	-0.0153	-0.0974	-0.1547	-0.2238	-0.1756
10.	2.12	0.0969	0.0614	0.0141	-0.0134	-0.0960	-0.1531	-0.2146	-0.1714
12.	1.00	0.0742	0.0354	-0.0181	-0.0415	-0.1043	-0.1776	-0.2540	-0.2465
14.	0.00	0.0568	0.0145	-0.0530	-0.0750	-0.1220	-0.1435	-0.2737	-0.2858
16.	3.02	0.1157	0.0819	0.0471	0.0090	-0.0565	-0.1330	-0.1601	-0.1554
18.	2.00	0.0957	0.0604	0.0158	-0.0152	-0.0860	-0.1532	-0.2235	-0.1821

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	5.01	-0.1219	0.0175	0.0209	0.0537	0.0413	0.0251	0.0070
4.	4.05	-0.1364	0.0224	0.0251	0.0541	0.0403	0.0256	0.0048
6.	2.76	-0.1107	0.0241	0.0284	0.0540	0.0390	0.0210	0.0033
8.	2.00	-0.0959	0.0253	0.0301	0.0544	0.0385	0.0209	0.0031
10.	2.12	-0.0953	0.0245	0.0292	0.0532	0.0377	0.0200	0.0024
12.	1.00	-0.0836	0.0280	0.0310	0.0544	0.0373	0.0202	0.0016
14.	0.00	-0.0884	0.0309	0.0389	0.0562	0.0391	0.0205	0.0014
16.	3.02	-0.1423	0.0229	0.0207	0.0551	0.0398	0.0221	0.0037
18.	2.00	-0.1272	0.0241	0.0312	0.0554	0.0403	0.0214	0.0032

DATE 3-17-78 PROJECT NO. PAIC-400

ARO, INC.

AEDC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT P WZL0-6 VM Q TT CWPLO SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 477. 0.949 145.6 816.7 3.000 1001.111 513.5 37.0 24. 55. 2-21-78 TRANSONIC 4T

POINT	ALFA	CNF	CV	CAF	CLWF	CLV	CLU	CAR
2.	5.01	0.4451	-0.0015	0.0263	0.0190	-0.0003	0.0015	0.0094
4.	4.05	0.7718	-0.0017	0.0264	0.0233	-0.0003	0.0017	0.0097
6.	2.76	0.2314	-0.0014	0.0276	0.0236	-0.0003	0.0016	0.0094
8.	2.00	0.1485	-0.0012	0.0285	0.0226	-0.0002	0.0015	0.0097
10.	2.12	0.1624	-0.0012	0.0286	0.0226	-0.0002	0.0015	0.0094
12.	1.00	0.0502	-0.0007	0.0297	0.0149	-0.0002	0.0015	0.0097
14.	0.00	-0.0430	-0.0009	0.0298	0.0155	-0.0002	0.0016	0.0096
16.	3.02	0.2630	-0.0014	0.0279	0.0228	-0.0003	0.0017	0.0094
18.	2.00	0.1493	-0.0010	0.0294	0.0220	-0.0002	0.0014	0.0094



DATE: 3-20-78 PROJECT NO. P41C-400  
 AERO, INC.  
 AERO DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PENNSYLVANIA WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M DT P REAL-0-A VM Q IT CONFID SURVEY DATE PROPULSION WIND TUNNEL  
 TC-112. 58A. 1.040 1349.4 492.2 7.99A 1081.474 533.7 75.8 96. 2-21-78 TRANSONIC 47

POINT	ALFA	CP51	CP52	CP53	CP54	CP55	CP56	CP57	CP58	CP59	CP510
2.	0.05	0.1355	0.0501	-0.0241	-0.0976	-0.1538	-0.1892	-0.1555	-0.0372	-0.0377	-0.0364
5.	0.05	0.1353	0.0495	-0.0248	-0.0979	-0.1550	-0.1898	-0.1560	-0.0379	-0.0379	-0.0374
7.	0.01	0.1340	0.0485	-0.0259	-0.0983	-0.1544	-0.1881	-0.1546	-0.0385	-0.0392	-0.0394
9.	1.19	0.1512	0.0637	-0.0119	-0.0867	-0.1457	-0.1924	-0.1429	-0.0951	-0.0970	-0.0650
11.	0.06	0.1477	0.0603	-0.0147	-0.0897	-0.1479	-0.1919	-0.1404	-0.0972	-0.0996	-0.0158
13.	2.33	0.1498	0.0793	0.0616	-0.0739	-0.1385	-0.1893	-0.1719	-0.0943	-0.0893	0.0613
15.	1.95	0.1628	0.0734	-0.0029	-0.0777	-0.1378	-0.1908	-0.1712	-0.0917	-0.0891	0.0355
17.	3.04	0.1668	0.0545	0.0148	-0.0623	-0.1250	-0.1827	-0.1713	-0.1030	-0.0907	0.0994
19.	2.03	0.1770	0.0871	0.0581	-0.0677	-0.1208	-0.1855	-0.1706	-0.0983	-0.0911	0.0774
21.	4.43	0.2057	0.1108	0.0288	-0.0496	-0.1138	-0.1748	-0.1677	-0.1057	-0.0914	0.1369
23.	3.79	0.1920	0.0991	0.0182	-0.0595	-0.1223	-0.1810	-0.1724	-0.1070	-0.0896	0.1107
25.	5.78	0.2245	0.1281	0.0429	-0.0344	-0.1029	-0.1672	-0.1653	-0.1066	-0.0918	0.1731
27.	4.00	0.2093	0.1142	0.0315	-0.0475	-0.1118	-0.1736	-0.1689	-0.1075	-0.0914	0.1459

POINT	ALFA	CP511	CP512	CP513	CP514	CP515	CP516	CP517	CP518
2.	0.05	0.0971	0.1112	0.0507	-0.0546	-0.1914	-0.0924	-0.1489	-0.2700
5.	0.05	0.0977	0.1110	0.0505	-0.0546	-0.1923	-0.0943	-0.1496	-0.2310
7.	0.01	0.0967	0.1099	0.0493	-0.0540	-0.1948	-0.0974	-0.1505	-0.2317
9.	1.19	0.1221	0.1260	0.0639	-0.0415	-0.1288	-0.0577	-0.1301	-0.2040
11.	0.04	0.1164	0.1221	0.0606	-0.0444	-0.1445	-0.0637	-0.1344	-0.2060
13.	2.33	0.1493	0.1427	0.0804	-0.0287	-0.0173	-0.0313	-0.1681	-0.1760
15.	1.95	0.1400	0.1364	0.0747	-0.0288	-0.0557	-0.0397	-0.1150	-0.1846
17.	3.04	0.1714	0.1593	0.0979	-0.0288	-0.0334	-0.0324	-0.0906	-0.1420
19.	2.03	0.1603	0.1510	0.0886	-0.0031	0.0214	-0.0214	-0.0989	-0.1405
21.	4.43	0.1940	0.1814	0.1331	0.1166	0.0532	0.0517	-0.0700	-0.0888
23.	3.79	0.1780	0.1645	0.1049	0.0954	0.0442	-0.0066	-0.0863	-0.1320
25.	5.78	0.2261	0.2116	0.1752	0.1511	0.0836	0.0246	-0.0205	-0.0081
27.	4.00	0.2025	0.1874	0.1435	0.1245	0.0645	0.0043	-0.0640	-0.0707

POINT	ALFA	CP519	CP520	CP521	CP522	CP523	CP524	CP525
2.	0.05	-0.2340	-0.2436	-0.1757	-0.0455	0.0488	0.0024	0.0793
5.	0.05	-0.2350	-0.2440	-0.1754	-0.0454	0.0488	0.0019	0.0789
7.	0.01	-0.2374	-0.2444	-0.1761	-0.0441	0.0485	0.0019	0.0781
9.	1.19	-0.1988	-0.2545	-0.1459	-0.0600	0.0818	0.0871	0.0751
11.	0.04	-0.2033	-0.2661	-0.1582	-0.0646	0.0830	0.0874	0.0750
13.	2.33	-0.1728	-0.2394	-0.1302	-0.0773	0.0688	0.0793	0.0713
15.	1.95	-0.1818	-0.2458	-0.1377	-0.0708	0.0745	0.0831	0.0732
17.	3.04	-0.1429	-0.1947	-0.0868	-0.1054	0.0440	0.0647	0.0619
19.	2.03	-0.1596	-0.2177	-0.1026	-0.0925	0.0547	0.0733	0.0667
21.	4.43	-0.0978	-0.1602	-0.0754	-0.1191	0.0277	0.0518	0.0456
23.	3.79	-0.1305	-0.1915	-0.0803	-0.1087	0.0384	0.0627	0.0582
25.	5.78	-0.0797	-0.1401	-0.0700	-0.1240	0.0080	0.0311	0.0261
27.	4.00	-0.0879	-0.1579	-0.0767	-0.1213	0.0218	0.0462	0.0406

DATE: 3-20-78 PROJECT NO. PAIC-NOD

ARO, INC.

AERO DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M DT D DEXIA-A VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 58A. 1.049 1349.4 492.2 2.00A 1041.474 533.7 70.0 24. 2-21-78 TRANSONIC 4T

POINT	ALFA	CNF	CV	CAF	CLMF	CLM	CLL	CAR
2.	0.05	-0.0440	-0.0016	0.0471	0.0288	0.0003	0.0010	0.0018
5.	0.04	-0.0443	-0.0016	0.0471	0.0290	0.0003	0.0010	0.0019
7.	0.01	-0.0493	-0.0015	0.0472	0.0291	0.0003	0.0010	0.0019
9.	1.10	0.0703	-0.0021	0.0474	0.0230	0.0003	0.0013	0.0014
11.	0.04	0.0473	-0.0020	0.0476	0.0216	0.0003	0.0012	0.0015
13.	2.33	0.1308	-0.0023	0.0466	0.0168	0.0002	0.0016	0.0012
15.	1.95	0.1502	-0.0019	0.0471	0.0164	0.0002	0.0015	0.0013
17.	3.48	0.3212	-0.0023	0.0451	0.0024	0.0001	0.0022	0.0012
19.	2.93	0.2572	-0.0022	0.0457	0.0127	0.0002	0.0019	0.0012
21.	4.63	0.4487	-0.0023	0.0440	-0.0011	0.0001	0.0023	0.0014
23.	3.79	0.3555	-0.0022	0.0446	0.0055	0.0001	0.0023	0.0013
25.	5.78	0.5797	-0.0024	0.0424	-0.0110	0.0000	0.0017	0.0014
27.	4.90	0.4801	-0.0020	0.0435	-0.0036	0.0001	0.0022	0.0014



DATE: 3-20-78 PROJECT NO. 941C-NDD  
 JAO, INC.  
 AEC DIVISION  
 A SUPPLEMENTAL CORPORATION COMPANY  
 PRODUCTION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M BY D REF10-A VM O TT CONF10 SURVEY DATE PRODUCTION WIND TUNNEL  
 TC-532. 547. 1.052 1302.3 601.7 3.003 1083.744 536.7 79.0 24. 50. 2-21-78 TRANSCONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	5.01	0.2109	0.1162	0.0329	-0.0458	-0.1101	-0.1724	-0.1459	-0.1054	-0.0940	0.1474
4.	4.00	0.1947	0.1020	0.0204	-0.0472	-0.1206	-0.1704	-0.1724	-0.1076	-0.0491	0.1177
6.	3.02	0.1782	0.0874	0.0083	-0.0441	-0.1296	-0.1470	-0.1726	-0.1005	-0.0413	0.0797
8.	2.00	0.1624	0.0739	-0.0033	-0.0744	-0.1344	-0.1922	-0.1746	-0.0943	-0.0443	0.0410
10.	0.00	0.1484	0.0610	-0.0141	-0.0886	-0.1471	-0.1912	-0.1626	-0.0950	-0.0465	-0.0111
12.	-0.01	0.1331	0.0474	-0.0270	-0.1002	-0.1563	-0.1804	-0.1457	-0.0904	-0.1005	-0.0414

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	5.01	0.2045	0.1901	0.1479	0.1240	0.0460	0.0001	-0.0402	-0.0567
4.	4.00	0.1822	0.1679	0.1094	0.0773	0.0400	-0.0070	-0.0437	-0.1242
6.	3.00	0.1608	0.1509	0.0847	-0.0009	0.0233	-0.0218	-0.0902	-0.1597
8.	2.00	0.1412	0.1369	0.0744	-0.0249	-0.0530	-0.0401	-0.1160	-0.1842
10.	0.00	0.1140	0.1230	0.0415	-0.0440	-0.1422	-0.0623	-0.1336	-0.2084
12.	-0.01	0.0948	0.1048	0.0480	-0.0473	-0.1954	-0.0947	-0.1518	-0.2328

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	5.01	-0.0424	-0.1548	-0.0755	-0.1220	0.0214	0.0414	0.0345
4.	4.00	-0.1210	-0.1464	-0.0770	-0.1117	0.0344	0.0540	0.0451
6.	3.00	-0.1506	-0.2164	-0.1010	-0.0942	0.0548	0.0722	0.0455
8.	2.00	-0.1817	-0.2468	-0.1543	-0.0728	0.0728	0.0817	0.0728
10.	0.00	-0.2024	-0.2571	-0.1607	-0.0574	0.0825	0.0870	0.0761
12.	-0.01	-0.2392	-0.2652	-0.1767	-0.0448	0.0861	0.0986	0.0774

DATE. 3-20-78 PROJECT NO. P41C-M00  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELLION WIND TUNNEL  
 ARNDT AIR FORCE STATION, TENNESSEE

TEST PART M DT P HEX10-A VM Q YT CONFIN SURVEY DATE PROPELLION WIND TUNNEL  
 TC-532. 487. 1.052 1302.3 401.7 3.003 1043.754 535.7 79.0 74. 59. 2-21-78 TRANSONIC 47

POINT	ALFA	CNF	CV	CAP	CLMF	CLN	CLL	CAR
2.	5.01	0.4920	-0.0019	0.0432	-2.0049	0.0000	0.0021	0.0015
4.	4.00	0.3791	-0.0020	0.0433	0.0036	0.0001	0.0027	0.0014
6.	3.00	0.2644	-0.0021	0.0431	0.0117	0.0001	0.0020	0.0013
8.	2.00	0.1549	-0.0021	0.0445	0.0188	0.0001	0.0014	0.0014
10.	0.99	0.0512	-0.0018	0.0473	0.0237	0.0002	0.0012	0.0015
12.	-0.01	-0.0514	-0.0015	0.0449	0.0293	0.0003	0.0010	0.0020



DATE: 3-26-78 PROJECT NO. PAC-MOD

ARO, INC.

AFC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ABHOLD AIR FORCE STATION, TENNESSEE

TEST POINT M BY D REX10-A VM O TT CONFID SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 420. 1.100 1377.4 644.8 3.002 1123.114 546.5 78.0 24. 50. 7-21-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	0.54	0.1562	0.0742	0.0010	-0.0766	-0.1269	-0.1730	-0.1571	-0.1124	-0.1073	-0.0453
5.	0.54	0.1562	0.0744	0.0018	-0.0764	-0.1265	-0.1730	-0.1558	-0.1119	-0.1062	-0.0440
7.	0.50	0.1560	0.0739	0.0012	-0.0763	-0.1266	-0.1724	-0.1561	-0.1109	-0.1057	-0.0449
9.	1.10	0.1713	0.0874	0.0148	-0.0658	-0.1197	-0.1701	-0.1472	-0.1149	-0.1074	-0.0381
11.	0.58	0.1605	0.0863	0.0129	-0.0670	-0.1203	-0.1692	-0.1562	-0.1132	-0.1064	-0.0388
13.	2.33	0.1884	0.1029	0.0247	-0.0537	-0.1094	-0.1628	-0.1562	-0.1133	-0.1088	-0.0223
15.	1.54	0.1840	0.0995	0.0261	-0.0559	-0.1115	-0.1636	-0.1555	-0.1129	-0.1069	-0.0284
17.	3.48	0.2064	0.1197	0.0433	-0.0431	-0.0985	-0.1584	-0.1461	-0.1097	-0.1114	0.0057
19.	2.54	0.1983	0.1120	0.0371	-0.0464	-0.1032	-0.1582	-0.1467	-0.1113	-0.1091	-0.0089
21.	4.43	0.2231	0.1346	0.0561	-0.0301	-0.0907	-0.1498	-0.1424	-0.1094	-0.1134	0.0504
23.	3.00	0.2114	0.1232	0.0464	-0.0374	-0.0945	-0.1546	-0.1455	-0.1107	-0.1131	0.0182
25.	5.76	0.2421	0.1515	0.0707	-0.0171	-0.0793	-0.1451	-0.1481	-0.1088	-0.1140	0.1233
27.	4.50	0.2284	0.1392	0.0594	-0.0259	-0.0834	-0.1467	-0.1502	-0.1083	-0.1134	0.0564
POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18	CPS19	CPS20
2.	0.54	0.1297	0.1600	0.1128	0.0168	-0.1227	-0.0369	-0.0705	-0.1514		
5.	0.54	0.1249	0.1605	0.1137	0.0175	-0.1223	-0.0361	-0.0696	-0.1506		
7.	0.50	0.1271	0.1608	0.1131	0.0172	-0.1235	-0.0364	-0.0709	-0.1521		
9.	1.10	0.1405	0.1454	0.1273	0.0298	-0.0768	0.0047	-0.0530	-0.1245		
11.	0.58	0.1563	0.1832	0.1257	0.0279	-0.0884	0.0024	-0.0545	-0.1291		
13.	2.33	0.1888	0.2029	0.1433	0.0479	-0.0195	0.0400	-0.0326	-0.0949		
15.	1.54	0.1804	0.1987	0.1402	0.0432	-0.0157	0.0312	-0.0370	-0.1056		
17.	3.48	0.2145	0.2211	0.1613	0.0853	0.1020	0.0625	-0.0133	-0.0827		
19.	2.54	0.2034	0.2131	0.1527	0.0634	0.0744	0.0547	-0.0217	-0.0794		
21.	4.43	0.2379	0.2368	0.1763	0.1713	0.1255	0.0730	0.0025	-0.0285		
23.	3.00	0.2224	0.2249	0.1662	0.1084	0.1135	0.0452	-0.0047	-0.0502		
25.	5.76	0.2667	0.2648	0.2079	0.2096	0.1454	0.0918	0.0258	0.0218		
27.	4.50	0.2452	0.2440	0.1983	0.1845	0.1310	0.0777	0.0080	-0.0184		
POINT	ALFA	CPS21	CPS22	CPS23	CPS24	CPS25	CPS26	CPS27	CPS28	CPS29	CPS30
2.	0.54	-0.1622	-0.1926	-0.2454	-0.1417	-0.1627	-0.1199	0.0215			
5.	0.54	-0.1614	-0.1913	-0.2452	-0.1402	-0.1609	0.0214	0.0221			
7.	0.50	-0.1644	-0.1922	-0.2468	-0.1415	-0.1609	0.0214	0.0230			
9.	1.10	-0.1213	-0.1820	-0.2208	-0.1288	-0.1414	0.0115	0.0166			
11.	0.58	-0.1254	-0.1833	-0.2254	-0.1300	-0.1415	0.0149	0.0195			
13.	2.33	-0.1944	-0.1864	-0.1950	-0.1155	-0.1405	0.0024	0.0081			
15.	1.54	-0.1005	-0.1689	-0.2014	-0.1179	-0.1369	0.0067	0.0114			
17.	3.48	-0.0680	-0.1523	-0.1593	-0.1009	-0.1099	-0.0078	-0.0023			
19.	2.54	-0.0789	-0.1585	-0.1759	-0.1040	-0.1043	-0.0023	0.0032			
21.	4.43	-0.0513	-0.1396	-0.1245	-0.0876	-0.2139	-0.0110	-0.0134			
23.	3.00	-0.0630	-0.1492	-0.1699	-0.0957	-0.2060	-0.0112	-0.0070			
25.	5.76	-0.0334	-0.1237	-0.0813	-0.0821	-0.2239	-0.0141	-0.0224			
27.	4.50	-0.0468	-0.1350	-0.1110	-0.0858	-0.2152	-0.0135	-0.0151			

DATE: 3-20-78 PROJECT NO. P41C-400  
 APC, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELLION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M DT P REK10-6 VM Q TT CONFIG SURVEY DATE PROPELLION WIND TUNNEL  
 TC-532. 420. 1.106 1377.6 444.8 3.002 1123.116 546.5 74.0 24. 50. 2-21-78 TRANSONIC 47

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLL	CAF	CLN	CLL	CAF	CLN	CLL
2	0.06	-0.0352	-0.0013	0.0494	0.0267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.06	-0.0349	-0.0012	0.0494	0.0265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.00	-0.0423	-0.0011	0.0495	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1.19	0.0748	-0.0015	0.0493	0.0205	-0.0000	0.0000	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012
11	0.98	0.0534	-0.0013	0.0496	0.0216	-0.0001	0.0001	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
13	2.13	0.1984	-0.0017	0.0481	0.0130	-0.0001	0.0001	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
15	1.96	0.1518	-0.0015	0.0488	0.0144	-0.0001	0.0001	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
17	3.48	0.3153	-0.0023	0.0472	0.0050	-0.0001	0.0001	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
19	2.94	0.2562	-0.0017	0.0476	0.0094	-0.0001	0.0001	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
21	4.63	0.4371	-0.0020	0.0461	-0.0046	-0.0001	0.0001	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
23	3.60	0.3585	-0.0021	0.0465	0.0015	-0.0001	0.0001	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
25	5.76	0.4560	-0.0024	0.0453	-0.0155	-0.0002	0.0002	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
27	4.90	0.4640	-0.0021	0.0457	-0.0048	-0.0001	0.0001	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013



DATE, 3-20-78 PROJECT NO. P41C-N00  
 AEC INC.  
 AEC DIVISION  
 A SUPERGROUP CORPORATION COMPANY  
 PRODUCTION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART W PT P REYNOLDS VM Q TT CONFID SURVEY DATE PRODUCTION WIND TUNNEL  
 TC-532, 421, 1.102 1376.4 603.0 1.000 1123.007 546.2 74.7 24. 50. 2-21-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	4.00	0.2101	0.1403	0.0611	-0.0244	-0.0061	-0.1462	-0.1509	-0.1081	-0.1134	0.0717
4.	4.00	0.2131	0.1254	0.0494	-0.0361	-0.0948	-0.1429	-0.1532	-0.1102	-0.1124	0.0230
6.	3.00	0.1942	0.1121	0.0371	-0.0444	-0.1027	-0.1545	-0.1576	-0.1110	-0.1115	-0.0085
8.	2.00	0.1433	0.0989	0.0242	-0.0570	-0.1117	-0.1615	-0.1568	-0.1134	-0.1081	-0.0244
10.	1.00	0.1484	0.0850	0.0128	-0.0675	-0.1212	-0.1708	-0.1568	-0.1154	-0.1062	-0.0389
12.	0.00	0.1544	0.0741	0.0019	-0.0761	-0.1250	-0.1719	-0.1556	-0.1100	-0.1045	-0.0437

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	4.00	0.2478	0.2462	0.2021	0.1874	0.1327	0.0782	0.0091	-0.0151
4.	4.00	0.2241	0.2268	0.1690	0.1187	0.1144	0.0647	-0.0067	-0.0458
6.	3.00	0.2032	0.2131	0.1532	0.0854	0.0753	0.0541	-0.0211	-0.0795
8.	2.00	0.1800	0.1982	0.1389	0.0529	-0.0127	0.0309	-0.0376	-0.1053
10.	1.00	0.1548	0.1873	0.1247	0.0284	-0.0870	0.0097	-0.0554	-0.1304
12.	0.00	0.1263	0.1688	0.1140	0.0177	-0.1234	-0.0400	-0.0713	-0.1510

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	4.00	-0.0424	-0.1332	-0.1072	-0.0850	-0.2159	-0.0147	-0.0162
4.	4.00	-0.0421	-0.1479	-0.1475	-0.0938	-0.2065	-0.0167	-0.0072
6.	3.00	-0.0777	-0.1569	-0.1719	-0.1071	-0.1957	-0.0041	0.0001
8.	2.00	-0.1004	-0.1692	-0.2007	-0.1183	-0.1886	0.0049	0.0100
10.	1.00	-0.1244	-0.1836	-0.2243	-0.1306	-0.1704	0.0131	0.0166
12.	0.00	-0.1638	-0.1908	-0.2448	-0.1408	-0.1618	0.0266	0.0234

DATE 3-28-78 PROJECT NO. P41C-400  
 AGO, INC.  
 AFDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELUSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M PT P REYNOLDS VM Q TT CONFIG SURVEY DATE PROPELUSION WIND TUNNEL  
 TC-532. API. 1.102 1375.6 643.0 3.000 1123.887 546.2 78.7 24. 50. 2-21-78 TRANSONIC 47

POINT	ALFA	CUF	CY	CXF	CLMF	CLW	CLL	CAR
2.	4.00	0.4745	-0.0021	0.0458	-0.0075	-0.0001	0.0013	0.0074
4.	4.00	0.7495	-0.0021	0.0465	0.0009	-0.0001	0.0015	0.0072
6.	3.00	0.9404	-0.0018	0.0471	0.0002	-0.0001	0.0014	0.0071
8.	2.00	0.1562	-0.0017	0.0483	0.0162	-0.0001	0.0013	0.0072
10.	1.00	0.0544	-0.0015	0.0491	0.0215	-0.0000	0.0011	0.0075
12.	0.00	-0.0436	-0.0011	0.0495	0.0273	0.0000	0.0009	0.0076



DATE: 3-20-78 PROJECT NO. 041C-400  
AGC, INC.  
AEC DIVISION  
A SVERDRUP CORPORATION COMPANY  
POPULATION WIND TUNNEL  
ARMED AIR FORCE STATION, TENNESSEE

TEST	PILOT	M	WT	P	DEFIN-A	VM	Q	TT	CONFIA	SURVY	DATE	PROPULSION WIND TUNNEL
TC-512	779.	0.027	148.5	AP0.6	3.000	976.145	400.2	AL.0	25.	50.	2-22-74	TRANSONIC AT

[illegible][illegible][illegible]

DATE: 3-26-78 PROJECT NO. PAIC-000

ADD. INC.

AFSC DIVISION

A SVERDRUP CORPORATION COMPANY

PRODUCTION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST PAUT M DT P DEXIA-A VM Q TT CONFIG SURVEY DATE PRODUCTION WIND TUNNEL  
TC-532. 770. 0.027 1445.5 829.6 3.000 976.185 499.2 81.0 25. 50. 2-772-78 TRANSONIC 47

POINT	ALFA	CNE	CV	CAP	CLWF	CLN	CLL	CAR
7.	0.00	-0.0460	-0.0007	0.0212	0.0029	-0.0103	0.0017	0.0090
9.	2.00	0.1475	-0.0013	0.0270	0.0121	-0.0003	0.0014	0.0091
11.	1.00	0.0484	-0.0008	0.0210	0.0082	-0.0004	0.0014	0.0091
13.	1.00	0.2499	-0.0014	0.0190	0.0170	-0.0003	0.0019	0.0090
15.	3.00	0.3545	-0.0017	0.0149	0.0204	-0.0004	0.0022	0.0090
17.	5.00	0.4732	-0.0017	0.0150	0.0217	-0.0005	0.0022	0.0090



DATE: 3-24-78 PROJECT NO. P41C-000  
 ARO, INC.  
 AFSC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELLSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M BY P REAL-A VM Q TT CONFID SURVEY DATE PROPELLSION WIND TUNNEL  
 TC-512. RII. 0.052 1634.0 802.8 2.000 000.004 509.2 82.7 25. 50. 2-22-78 TRANSONIC 4T

POINT	ALFA	CP91	CP92	CP93	CP94	CP95	CP96	CP97	CP98	CP99	CP910
2.	-0.02	0.0094	-0.0342	-0.1171	-0.1753	-0.2238	-0.0390	-0.0319	0.0221	0.0663	0.1628
4.	1.00	0.0081	-0.0109	-0.1022	-0.1618	-0.2116	-0.0369	-0.0308	0.0273	0.0745	0.1755
6.	2.01	0.0791	-0.0104	-0.0941	-0.1541	-0.2043	-0.0361	-0.0354	0.0265	0.0781	0.1863
8.	3.01	0.0968	0.0041	-0.0806	-0.1482	-0.1895	-0.0362	-0.0311	0.0347	0.0895	0.1993
10.	4.01	0.1115	0.0188	-0.0679	-0.1199	-0.1628	-0.0336	-0.0265	0.0429	0.1004	0.2131
12.	5.01	0.1315	0.0360	-0.0516	-0.1263	-0.1734	-0.0287	-0.0177	0.0567	0.1160	0.2314

POINT	ALFA	CP911	CP912	CP913	CP914	CP915	CP916	CP917	CP918
2.	-0.02	0.1317	-0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0588
4.	1.00	0.1447	-0.1752	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0276
6.	2.01	0.1507	-0.0195	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0166
8.	3.01	0.1634	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0084
10.	4.01	0.1745	0.0586	0.0000	0.0000	0.0000	0.0000	0.0000	0.0027
12.	5.01	0.1925	0.0958	0.0000	0.0000	0.0000	0.0000	0.0000	0.0137

POINT	ALFA	CP919	CP920	CP921	CP922	CP923	CP924	CP925
2.	-0.02	-0.0672	0.0406	0.1170	0.1083	0.0687	0.0539	0.0488
4.	1.00	-0.0645	0.0423	0.1195	0.1100	0.0781	0.0559	0.0516
6.	2.01	-0.0717	0.0394	0.1185	0.1071	0.0660	0.0524	0.0482
8.	3.01	-0.0730	0.0412	0.1232	0.1102	0.0691	0.0542	0.0504
10.	4.01	-0.0757	0.0431	0.1263	0.1123	0.0704	0.0541	0.0511
12.	5.01	-0.0771	0.0439	0.1321	0.1173	0.0750	0.0583	0.0550

DATE. 3-29-78 PROJECT NO. P41C-400  
 AEC DIVISION  
 A SUBGROUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST	PART	M	DT	P	REXIN-A	VM	Q	TT	CONFIG	SURVEY	DATE	PROPULSION WIND TUNNEL
YC-512	ALL	0.052	1414.0	802.8	2.900	999.804	500.2	82.7	25.	50.	2-22-78	TRANSONIC 47
POINT	ALFA	CNF	CV	C4F	CLMF	CLN	CLL	CAR				
2.	-0.02	-0.0684	-0.0031	0.0214	0.0047	0.0003	0.0015	0.0024				
4.	1.00	0.0442	-0.0034	0.0221	0.0048	0.0003	0.0015	0.0023				
6.	2.01	0.1483	-0.0036	0.0208	0.0132	0.0003	0.0017	0.0024				
8.	3.01	0.2572	-0.0038	0.0196	0.0134	0.0004	0.0014	0.0024				
10.	4.01	0.3624	-0.0042	0.0185	0.0140	0.0003	0.0022	0.0026				
12.	5.01	0.4411	-0.0045	0.0172	0.0123	0.0002	0.0025	0.0024				



DATE. 3-20-78 PROJECT NO. P41C-N00  
 ARO, INC.  
 AFSC DIVISION  
 A SUPPLEMENT CORPORATION COMPANY  
 PRODUCTION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART W PT P REX10-6 VM Q TT CONFIG SURVEY DATE PRODUCTION WIND TUNNEL  
 TC-532, 436, 1.050 1401.5 407.5 2.998 1085.740 536.4 83.2 25, 50, 2-22-78 TRANSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
3.	-0.02	0.1359	0.0507	-0.0251	-0.0076	-0.1543	-0.1011	-0.1588	-0.0934	-0.0737	0.1774
5.	0.04	0.1454	0.0627	-0.0140	-0.0077	-0.1462	-0.1041	-0.1484	-0.0903	-0.0644	0.1945
7.	1.00	0.1652	0.0756	-0.0028	-0.0779	-0.1373	-0.1024	-0.1744	-0.0945	-0.0579	0.2151
9.	2.00	0.1804	0.0800	0.0085	-0.0676	-0.1294	-0.1454	-0.1491	-0.0947	-0.0464	0.2277
11.	4.00	0.1924	0.1026	0.0195	-0.0574	-0.1206	-0.1423	-0.1677	-0.0903	-0.0411	0.2444
13.	5.02	0.2114	0.1170	0.0326	-0.0442	-0.1110	-0.1729	-0.1451	-0.0901	-0.0442	0.2584

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
3.	-0.02	0.2144	-0.1744	0.0990	0.0990	0.0900	0.0900	0.0900	-0.0468
5.	0.04	0.2274	-0.1746	0.0990	0.0990	0.0900	0.0900	0.0900	-0.0245
7.	1.00	0.2385	-0.1739	0.0990	0.0990	0.0900	0.0900	0.0900	-0.0021
9.	2.00	0.2455	-0.1647	0.0990	0.0990	0.0900	0.0900	0.0900	0.0183
11.	4.00	0.2544	-0.1548	0.0990	0.0990	0.0900	0.0900	0.0900	0.0372
13.	5.02	0.2610	-0.1256	0.0990	0.0990	0.0900	0.0900	0.0900	0.0751

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
3.	-0.02	-0.2349	-0.1875	0.0124	0.0742	0.0915	0.0917	0.0885
5.	0.04	-0.2236	-0.1632	0.0169	0.0644	0.0433	0.0450	0.0480
7.	1.00	-0.2084	-0.1242	0.0244	0.0445	0.0742	0.0446	0.0546
9.	2.00	-0.1954	-0.2459	0.0373	0.0621	0.0601	0.0742	0.0772
11.	4.00	-0.1754	-0.1664	0.0374	0.0454	0.0361	0.0521	0.0473
13.	5.02	-0.1542	-0.1395	0.0384	0.0397	0.0211	0.0340	0.0512

DATE. 3-20-78 PROJECT NO. P41C-N00  
 AEC, INC.  
 AEC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPELLION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PATT M OT P REX10-A VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
 1C-532. 875. 1.050 1401.5 407.5 2.908 1085.740 538.4 87.2 50. 2-22-78 TRANSONIC 47

POINT	ALFA	CUF	CV	CAF	CLMF	CLN	CLL	CAM
1.	-0.02	-0.0540	-0.0014	0.0394	-0.0167	-0.0061	0.0011	0.0011
5.	0.08	0.0473	-0.0016	0.0392	0.0096	-0.0061	0.0013	0.0004
7.	1.00	0.1549	-0.0019	0.0345	0.0020	-0.0001	0.0015	0.0007
9.	2.00	0.2671	-0.0022	0.0268	-0.0056	-0.0002	0.0014	0.0004
11.	4.00	0.3847	-0.0020	0.0153	-0.0151	-0.0003	0.0019	0.0010
13.	5.02	0.4089	-0.0023	0.0341	-0.0252	-0.0003	0.0014	0.0012



DATE: 3-20-78 PROJECT NO. P41C-N00

ADD. INC.

AFDC DIVISION

A SUBORDINATE CORPORATION COMPANY

PROPULSION WIND TUNNEL

ANDREAS AERONAUTICAL STATION, TENNESSEE

TEST PART W PT P REF10-A VM Q TT CONF16 SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. RA1. 1.100 1300.3 450.9 3.001 1127.202 551.4 87.8 25. 2-22-78 TRENSONIC 47

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
4.	-0.01	0.1574	0.0744	0.2004	-0.0744	-0.1244	-0.1723	-0.1454	-0.1105	-0.1009	0.1821
6.	0.00	0.1701	0.0465	0.0120	-0.0473	-0.1139	-0.1483	-0.1463	-0.1121	-0.1030	0.1945
8.	1.00	0.1451	0.1000	0.0244	-0.0475	-0.1123	-0.1445	-0.1556	-0.1132	-0.1054	0.2162
10.	2.00	0.1407	0.1129	0.0353	-0.0444	-0.1068	-0.1434	-0.1544	-0.1130	-0.1047	0.2338
12.	3.00	0.2164	0.1278	0.0447	-0.0344	-0.0941	-0.1438	-0.1512	-0.1128	-0.1091	0.2520
14.	5.00	0.2304	0.1107	0.0401	-0.0344	-0.0474	-0.1447	-0.1447	-0.1009	-0.1114	0.2705

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
4.	-0.01	0.2424	-0.1023	0.0444	0.0470	0.0000	0.0000	0.0000	0.0287
6.	0.00	0.2744	-0.1041	0.0444	0.0444	0.0000	0.0000	0.0000	0.0404
8.	1.00	0.2443	-0.1033	0.0444	0.0444	0.0000	0.0000	0.0000	0.0702
10.	2.00	0.2463	-0.1005	0.0444	0.0444	0.0000	0.0000	0.0000	0.0874
12.	3.00	0.3040	-0.0917	0.0444	0.0444	0.0000	0.0000	0.0000	0.1053
14.	5.00	0.3134	-0.0740	0.0444	0.0444	0.0000	0.0000	0.0000	0.1149

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
4.	-0.01	-0.1612	-0.3773	-0.0458	-0.0474	-0.0534	-0.0115	0.0124
6.	0.00	-0.1440	-0.3442	-0.0333	-0.0349	-0.0544	-0.0240	0.0070
8.	1.00	-0.1344	-0.3135	-0.0195	-0.0244	-0.0405	-0.0272	0.0024
10.	2.00	-0.1234	-0.2740	-0.0070	-0.0141	-0.0347	-0.0373	-0.0057
12.	3.00	-0.1114	-0.2444	0.0121	-0.0079	-0.0414	-0.0440	-0.0153
14.	5.00	-0.1044	-0.2154	0.0251	-0.0019	-0.0530	-0.0519	-0.0311

DATE: 3-20-74 PROJECT NO. 941C-NOD  
 INC. INC.  
 AEC DIVISION  
 A VERMOREL CORPORATION COMPANY  
 PONDULSION WIND TUNNEL  
 AEROD 312 FORCE STATION, TENNESSEE

TEST POINT M PT D DESIGN-6 UM D TT CONFIG SURVEY DATE PONDULSION WIND TUNNEL  
 TC-412. 1.100 1300.3 650.9 3.001 1127.202 451.6 42.8 94. 2-22-74 TRANSONIC 47

POINT	ALFA	CAF	CY	CAF	CLMF	CLM	CLL	CAF
4.	-0.01	-0.0461	-0.0011	0.0401	0.0185	-0.0002	0.0010	0.0072
6.	0.09	0.0532	-0.0016	0.0397	0.0041	-0.0001	0.0011	0.0049
8.	1.00	0.1551	-0.0016	0.0388	-0.0001	-0.0002	0.0010	0.0047
10.	2.00	0.2638	-0.0018	0.0374	-0.0001	-0.0004	0.0008	0.0048
12.	3.00	0.3754	-0.0021	0.0362	-0.0001	-0.0003	0.0008	0.0049
14.	5.00	0.4861	-0.0024	0.0356	-0.0001	-0.0003	0.0010	0.0074



DATE: 3-28-78 PROJECT NO. PALC-000

ARC, INC.

AIRC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M PT D REX18-A VM D IT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
TC-532. 77A. 0.027 142A.3 81A.4 3.000 971.022 492.7 75.4 26. 2-22-78 TRANSONIC AT

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
2.	0.01	0.0388	0.0450	-0.1191	-0.1761	-0.1733	-0.0760	-0.0653	-0.0203	-0.0125	0.0083
5.	0.01	0.0400	-0.0442	-0.1182	-0.1767	-0.1735	-0.0697	-0.0650	-0.0201	-0.0114	0.0064
7.	1.00	0.0543	-0.0314	-0.1072	-0.1682	-0.1702	-0.0643	-0.0659	-0.0169	-0.0032	0.0234
9.	2.01	0.0704	-0.0172	-0.0947	-0.1584	-0.1645	-0.0680	-0.0622	-0.0109	0.0074	0.0414
17.	4.00	0.1004	0.0102	-0.0686	-0.1329	-0.1468	-0.0640	-0.0538	0.0036	0.0302	0.0761
19.	4.01	0.1104	0.0273	-0.0550	-0.1224	-0.1340	-0.0679	-0.0645	0.0164	0.0470	0.1001

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
2.	0.01	0.0084	0.0087	0.0090	0.0090	0.0090	0.0090	0.0090	0.0141
5.	0.01	0.0090	0.0094	0.0090	0.0090	0.0090	0.0090	0.0090	0.0143
7.	1.00	0.0310	0.1223	0.0090	0.0090	0.0090	0.0090	0.0090	0.0191
9.	2.01	0.0434	0.1446	0.0090	0.0090	0.0090	0.0090	0.0090	0.0268
17.	4.00	0.0940	0.1074	0.0090	0.0090	0.0090	0.0090	0.0090	0.0457
19.	4.01	0.1224	0.2130	0.0090	0.0090	0.0090	0.0090	0.0090	0.0544

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
2.	0.01	0.0133	0.0290	0.0141	0.0212	0.0073	-0.0044	-0.0091
5.	0.01	0.0130	0.0303	0.0149	0.0218	0.0040	-0.0013	-0.0066
7.	1.00	0.0163	0.0304	0.0143	0.0220	0.0048	-0.0036	-0.0079
9.	2.01	0.0173	0.0329	0.0155	0.0236	0.0058	-0.0020	-0.0059
17.	4.00	0.0240	0.0361	0.0170	0.0254	0.0088	0.0000	-0.0034
19.	4.01	0.0307	0.0410	0.0211	0.0301	0.0122	0.0036	-0.0009

DATE 3-20-78 PROJECT NO. PAIC-000  
 AEC, INC.  
 AFDC DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PROPULSION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST PART M DT D REXIS-A VM Q TT CONFID SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532. 776. 0.027 1424.3 A14.4 3.000 071.022 402.7 75.6 76. 50. 9-22-78 TRANSONIC 47

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLL	CM
2.	0.01	-0.0372	-0.0007	0.0192	-0.0041	-0.0002	0.0018	0.0002
5.	0.01	-0.0368	-0.0009	0.0191	-0.0039	-0.0002	0.0018	0.0002
7.	1.00	0.0543	-0.0011	0.0188	0.0013	-0.0002	0.0018	0.0003
9.	2.01	0.1564	-0.0013	0.0178	0.0070	-0.0002	0.0019	0.0003
17.	4.00	0.7584	-0.0017	0.0134	0.0176	-0.0003	0.0021	0.0002
19.	5.01	0.4444	-0.0018	0.0117	0.0142	-0.0004	0.0022	0.0002



DATE: 3-20-78 PROJECT NO. 941C-N00  
 AERO INC.  
 AERO DIVISION  
 A SVERDRUP CORPORATION COMPANY  
 PRODUCTION WIND TUNNEL  
 ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M OT P REAL-A VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
 TC-532, 800, 0.040 1447.4 810.9 2.000 990.564 510.9 85.4 50. 2-22-78 TRANSONIC AT

POINT	ALFA	CPS1	CPS2	CPS3	CPS4	CPS5	CPS6	CPS7	CPS8	CPS9	CPS10
A.	0.04	0.0497	-0.0370	-0.1184	-0.1002	-0.2268	-0.0818	-0.0554	-0.0066	0.0041	0.0227
B.	1.03	0.0629	-0.0250	-0.1070	-0.1631	-0.2205	-0.0566	-0.0488	-0.0050	0.0004	0.0370
10.	2.02	0.0784	-0.0113	-0.0954	-0.1606	-0.2113	-0.0408	-0.0481	0.0000	0.0386	0.0534
12.	3.02	0.0940	0.0036	-0.0823	-0.1510	-0.1974	-0.0476	-0.0446	0.0071	0.0307	0.0719
14.	4.02	0.1107	0.0169	-0.0689	-0.1412	-0.1874	-0.0422	-0.0426	0.0149	0.0434	0.0907
16.	5.03	0.1267	0.0344	-0.0527	-0.1284	-0.1776	-0.0347	-0.0337	0.0282	0.0416	0.1143

POINT	ALFA	CPS11	CPS12	CPS13	CPS14	CPS15	CPS16	CPS17	CPS18
A.	0.04	0.0261	0.1163	0.0990	0.0990	0.0990	0.0990	0.0990	-0.0317
B.	1.02	0.0448	0.1374	0.0990	0.0990	0.0990	0.0990	0.0990	-0.0203
10.	2.02	0.0647	0.1597	0.0990	0.0990	0.0990	0.0990	0.0990	-0.0019
12.	3.02	0.0894	0.1810	0.0990	0.0990	0.0990	0.0990	0.0990	0.0134
14.	4.02	0.1109	0.2027	0.0990	0.0990	0.0990	0.0990	0.0990	0.0214
16.	5.03	0.1373	0.2279	0.0990	0.0990	0.0990	0.0990	0.0990	0.0274

POINT	ALFA	CPS19	CPS20	CPS21	CPS22	CPS23	CPS24	CPS25
A.	0.04	0.0053	0.0398	0.0244	0.0329	0.0122	0.0010	-0.0072
B.	1.03	0.0060	0.0368	0.0240	0.0313	0.0112	-0.0012	-0.0060
10.	2.02	0.0077	0.0354	0.0237	0.0307	0.0104	-0.0012	-0.0064
12.	3.02	0.0094	0.0360	0.0243	0.0326	0.0131	0.0024	-0.0046
14.	4.02	0.0118	0.0366	0.0247	0.0342	0.0161	0.0053	-0.0027
16.	5.03	0.0083	0.0340	0.0250	0.0379	0.0202	0.0092	0.0022

DATE 3-24-78 PROJECT NO. PAIC-000

ACC. INC.

AEC DIVISION

A SVERDRUP CORPORATION COMPANY

PROPULSION WIND TUNNEL

ARNOLD AIR FORCE STATION, TENNESSEE

TEST POINT M DT D DEX10-A VM Q TT CONFIG SURVEY DATE PROPULSION WIND TUNNEL  
YC-512. 899. 0.049 1447.4 810.9 2.99A 950.54A 510.0 85.4 26. 50. 3-22-78 TRANSONIC AT

POINT	ALFA	CNF	CY	CAF	CLMF	CLN	CLL	CAR
1.	0.04	-0.0343	-0.0010	0.0231	-0.0002	-0.0003	0.0013	0.0100
2.	1.02	0.0599	-0.0011	0.0208	0.0016	-0.0003	0.0014	0.0100
10.	2.02	0.1544	-0.0010	0.0201	0.0041	-0.0002	0.0016	0.0101
12.	3.02	0.2472	-0.0016	0.0187	0.0034	-0.0003	0.0014	0.0100
14.	4.02	0.3723	-0.0019	0.0175	0.0036	-0.0003	0.0019	0.0098
16.	5.03	0.4921	-0.0022	0.0170	0.0013	-0.0004	0.0021	0.0094



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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Results are presented for transonic wind tunnel tests conducted in the 4T Wind Tunnel at Arnold Engineering and Development Center for various wing-body/pylon/store model combinations. Experimental data were obtained at 0, 2, and 5 degrees angle of attack of the model combinations and at Mach numbers of 0.925, 0.950, 1.05, and 1.10 in the transonic range. Pylon and store models were attached to a wing-body combination in two separate, systematic model build-up sequences. At each stage of the first sequence, flow velocities and static pressures were obtained in the vicinity of the store or those regions normally occupied by a store while		

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force, moment, and surface pressure measurements were taken on the wing-body model. Also, flow velocities and static pressure were recorded on a cylindrical control surface far from the tunnel centerline to provide outer flow field conditions. The second model build-up sequence involved a special pressure-instrumented store that was mounted on the captive trajectory system for simulating a separating store. Detailed pressure distributions and loading were obtained on the store.

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